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Volume 167 No. 17

Oil, Paint and Drug Reporter

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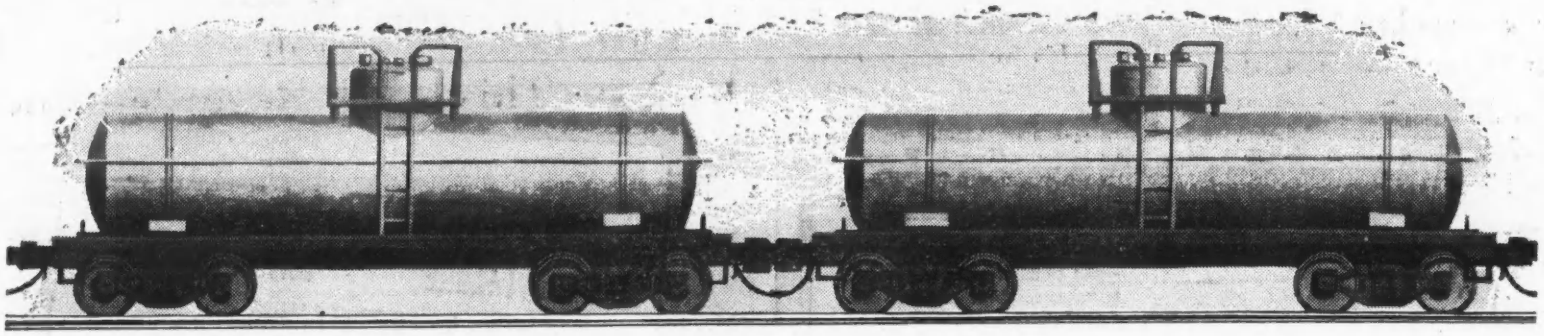

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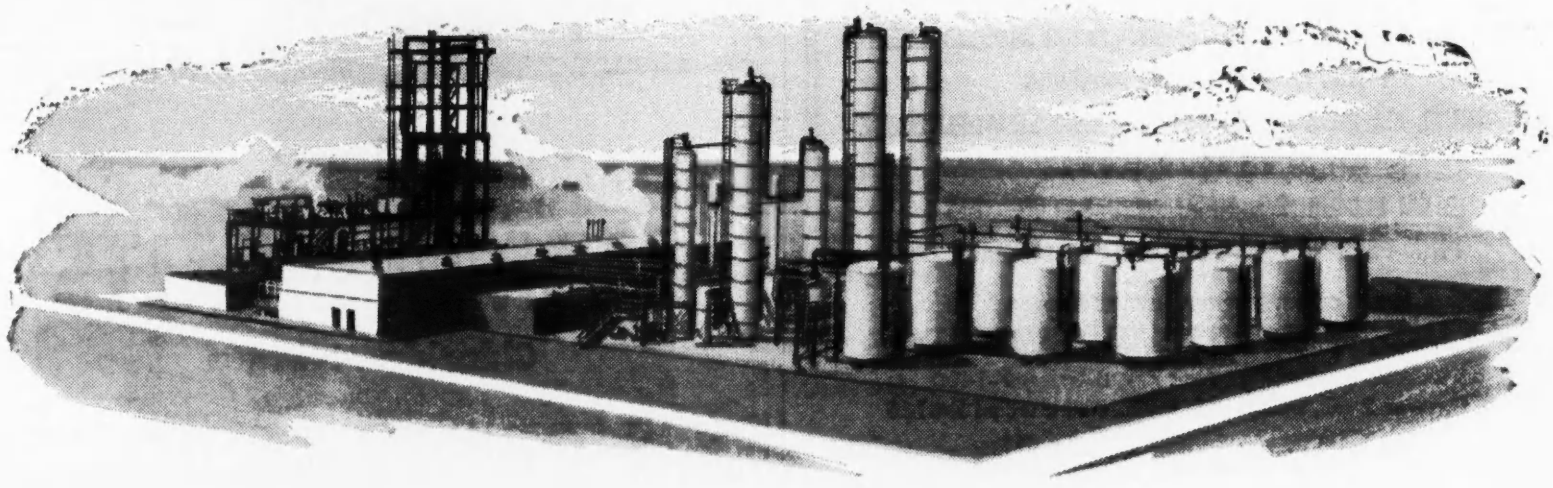

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Salk Vaccine Suppliers, US Agree on Standard

Representatives of the producing companies and officials of the Public Health Service last week were reported to have reached an understanding on the minimum standards and methods for assaying the new Salk polio vaccine. The accord, it was said, will largely remove the threat of a sharp cutback in supplies because of the failure of some stocks to meet official requirements.

At conferences throughout most of last week between the companies and the government on standards for the material, the agency agreed to recognize a broader variation in the tolerance limits than previously prescribed. This will permit a larger portion of the vaccine stocks already on hand to become available for immediate use instead of having to be re-worked, as was previously thought necessary. Other minor changes in the specifications, which led to misunderstandings, also were ironed out.

Cut in Supplies Feared

A downward revision in estimated supplies of the vaccine, which were already short for immediate use in the polio season now coming on, appeared necessary soon after the Department of Health, Education and Welfare approved production of the material April 12. It was discovered that the standards written by PHS deviated in some respects from those which the companies had been following in building up stocks last winter. Hence it was believed that the output of some of the producers would have to be discarded or re-worked.

The differences centered around the potency requirements. Safety of the vaccine was not in question. The standards which the companies followed had been drawn up by the research group of the National Foundation for Infantile

—*Continued on page 64*

Lithium Exports Are Put Under Government Control

Exportation of lithium was placed under close government control by the Bureau of Foreign Commerce last week in an amendment to the positive list, effective April 28. After that date exporters will be required to obtain valid licenses to export lithium commodities to any destination except Canada.

The bureau said that controls over the materials were being tightened to protect the national security. The items involved are lithium alloys, lithium ores and concentrates, and lithium-containing minerals.

NSF's Research Survey Is Extended to Colleges

A survey of research activities at colleges and universities, comparable to the survey being made of research programs of government agencies, industy, private foundations, and other research groups, has been initiated by the National Science Foundation, it was announced last week.

The educational institutions are being asked to provide information on the total annual expenditures for research, source of funds, and subject fields in which research is conducted, as well as the number of scientists on the staff and the extent to which these scientists are engaged in research.

Colombia's Use of Pesticides Expected to Double by 1960

Colombian consumption of pesticides, which has been rising steadily, is expected by the Caja de Credito Agrario, the principal consumer in the country, to double by 1960, the Department of Commerce reported last week in its continuing survey of the international pesticides situation. Pesticides are not produced in Colombia, the department pointed out, and the country, therefore, must depend on imported products to supply its needs.

Lime is the only domestic material available for preparation of pesticides, and it is mixed with copper sulfate to make bordeaux mixture. Substantial amounts of sulfur are produced but it is not adequately refined for pesticide purposes. Two firms, however, compound and package insecticides from imported ingredients, and eventually copper sulfate may be manufactured domestically and household insecticides compounded from imported toxic ingredients and domestic oil.

The Public Health Service in 1954 im-

—*Continued on page 78*

Soybean Oil Rules Relaxed

The Treasury Department last week announced a modification of its regulations on foreign assets control to permit the importation of soybean oil and soybean meal from Japan directly or on a through bill of lading. Certificates of origin showing that the product is not of Red China origin are now available from the Japanese Ministry of International Trade and Industry, it was stated.

President Urged to Allow Carriers To Fix Own Rates—Within Limits

The Presidential advisory committee on transport policy last week recommended that the railroads, motor truckers and water carriers be allowed to fix their own rates and charges—within limits—for the movement of goods and other services performed in order that more reliance may be placed on competition between the various services in the establishment of rate levels.

The committee also recommended changes in public policy affecting transportation, with the objective of maintaining a modernized and financially strong system of common carrier transportation; encouraging increased efficiency and economy in the management of all transportation services in order to give the ultimate consumer the benefit of the lowest possible transportation costs; and developing an efficient transportation system for defense mobilization or war.

Based on Year-Long Studies

The committee's recommendations were made in a report to the President on the basis of studies begun over a year ago. Secretary of Commerce Sinclair Weeks was chairman of the committee, whose other members were Secretary of Defense Charles E. Wilson and Arthur S. Flemming, director of the Office of Defense Mobilization.

Of immediate interest to the chemical industry, in addition to the recommendations for more freedom to the services in fixing rates, was a recommendation for repeal of the bulk commodity exemption applicable to water carriers so as to subject them to regulation similar to that applicable to other transportation. Legislation for repeal of the exemption is already pending in the senate (S. 951).

Chemical plants located on the water ways presently have a freight advantage over their inland competitors when they are able to ship bulk commodities in tows or vessels carrying no more than three commodities. The committee stated that the exemption has a tendency to induce inefficiency in the transportation services. The report explained:—

Report's Explanation

"Common carriers by water contend that if they are to obtain the benefits of the exemption they must segregate their tows to exclude non-exempt commodities. This procedure is often impossible, in which case they must quote published rates with the risk of losing the business to another carrier quoting a secret exempt rate. It is claimed that conformity with the requirements for exemption results in operating inefficiencies such as smaller tows, and poorer service to some shippers."

Repeal of the bulk commodity exemption would bring under ICC regulation common and contract water carriers engaged in transportation on the inland waterways, coastal waters and deep sea routes, and the Great Lakes. The repeal

—*Continued on page 82*

Senate Consideration of Trade Bill By Late This Week Regarded Likely

The administration's trade agreements extension bill, H. R. 1, is scheduled to be reported favorably to the senate in a few days by the senate finance committee. Majority leader Lyndon B. Johnson of Texas stated last week that when reported the measure will be given priority over all other legislation in the senate and will remain under consideration until disposed of.

Getting down to voting on amendments last week for the first time since hearings were closed just before the Easter recess, the committee made much progress in settling some of the issue in the bill. Action on the remaining amendments may be completed today or tomorrow. Several important changes were written into the bill by the committee, including the following:—

Changes Written Into Bill

- Base date for application of the additional 15 percent of the rate-cutting authority given to the President in the bill was changed from July 1 to January 1, 1955.
- Provisions which would allow reductions of 50 percent in the rates in effect on January 1, 1945, on all items normally not imported or imported in negligible quantities were deleted from the bill.
- Subsections permitting the President to avoid subdivision of classification categories and fractions in the setting of rates were also eliminated.
- The President was required to submit a report on operation of the trade agreements program and it was also provided that the Tariff Commission make a similar report.
- A provision was included directing the Tariff Commission to make all its reports on escape clause investigations public immediately upon their submission to the President.

The committee defeated by a vote of 8 to 7 an amendment which would have limited the extension of the trade agreements act to two years instead of three. The effect of the amendment, had it been approved, would have been to reduce the President's authority to make additional cuts in tariffs to 10 percent of the rates in effect July 1, 1955, instead of 15 percent.

Textile Interests Win Victory

The change in the base dates for application of the new rate cutting authority was an upset for the administration and was voted by the committee largely to mollify the textile interests who feared that rates on textiles would be reduced 65 percent in the next three years.

The amendment is not limited to relief for the textile industry, however, but has general applications and applies to over 300 specific items currently involved in trade agreement negotiations, including many chemicals, chinaware, glassware and metal products.

Specifically, the amendment permits the current negotiations of the Japanese trade agreement and amendment of the Swiss agreement to be completed on the basis of tariff reductions up to 50 percent of the rates in effect on January 1, 1945, but in cases where the rate is reduced more than 15 percent the authority of the President to make another 15 percent reduction after July 1 shall not apply.

US Butyl Rubber Facilities Shifted to Esso Standard Oil

The first transfer of a synthetic rubber plant to private ownership under the rubber producing facilities disposal act of 1953 took place at Baton Rouge, La., last week when Esso Standard Oil Company, New York, paid the federal government $16,000,000 for butyl rubber units the company has operated for the government since 1942.

United States Rubber Company, meanwhile, told its stockholders meeting in New York that it will take title to three synthetic rubber plants this week. It plans to take over the installation in Naugatuck, Conn., on April 26. Three days later, the Texas-U. S. Chemical Company, in which U. S. Rubber owns a half interest, will take title to a synthetic rubber plant in Port Neches, Tex., and a one-half interest in a butadiene unit nearby.

The Baton Rouge plants have a capacity to produce about 47,000 tons of butyl rubber out of a total 90,000 tons capacity in the United States annually. Since its development of this process, Esso Standard Oil has licensed the method for making butyl to other companies and has provided needed technical assistance as well.

In a statement to his stockholders, H. E. Humphreys, jr., U. S. Rubber chairman, said, "We are satisfied that all parties acted wisely in arranging this transfer of synthetic rubber production from the government to private industry. The rubber companies agreed on fair prices. They will pay a total of $286,500,000. That will be more than double the net book value of the plants and more than 99 percent of the current appraised value

—*Continued on page 78*

Aluminum Copper Allotment Set by ODM for 3rd Quarter

Allotments of aluminum, copper and steel for "A" products for defense and atomic energy needs during the third quarter of 1955 were announced last week by the Office of Defense Mobilization. The aluminum allotment was 3 percent lower than for the second quarter and the copper allotment was 7 percent lower, but the steel allotment was up 2 percent.

The allotments for "A" products represent purchase authority to prime contractors and producers of specially designed military equipment for the three metals at the mill level. The total quantities of steel, copper and aluminum to be set aside at the mill level will include additional amounts required by manufacturers of civilian type items incorporated in military items.

Aluminum allotments for "A" products in the third quarter were set at 106,223,905 pounds against 109,016,337 pounds in the second quarter; copper and copper base alloys, 57,834,402 pounds against 62,085,752 pounds, and steel, 696,958 short tons against 681,003 short tons.

Monsanto Awarded Write-Off For Plastics Division Facility

The plastics division of Monsanto Chemical Company, St. Louis, Mo., has been issued a certificate of necessity by the Office of Defense Mobilization for accelerated amortization of new facilities at Texas City, Tex., costing $476,274 for research and development work. The certificate permits rapid amortization of 40 percent of the cost of the project.

The agency also announced issuance of certificates for forty-six other new or expanded facilities amounting to $59,018,216 during the two weeks period from March 24 through April 6. With the certificates just announced, accelerated tax amortization amounting to $30,114,638,000 has now been granted for 19,658 new or expanded facilities.

Copper Import Legislation Would Suspend Duty to '58

A bill to continue the suspension of import taxes on copper until June 30, 1958, was introduced in the house last week by Rep. Jere Cooper of Tennessee, chairman of the ways and means committee.

The bill, H.R. 5695, has the support of the administration and is expected to be given approval by the ways and means committee, probably this week. The committee has scheduled a meeting today to consider the President's recommendation that the contract renegotiation law be continued for another two years.

Tin Smelter Continuance Is Voted by Senate Group

A resolution to continue government operations of the new Texas City, Tex., tin smelter for one year until June 30, 1956, was approved last week by a special subcommittee of the senate armed services committee and the banking and currency committee. The resolution also directs the Treasury Department to submit recommendations to congress for disposal of the plants by lease or sale to private interests with the condition that its operation be continued.

State Dep't to Handle Most of FOA Activities

Functions and affairs of the Foreign Operations Administration, except those charged to the Defense department, will be transferred to the Department of State shortly by executive order of the President, it was announced last week by the White House. Supplementary orders will be issued later, it was stated, providing for certain organization changes, and elimination of certain functions.

The White House announcement was in the form of a letter from the President to Secretary of State John Foster Dulles to advise him of the transfer plans as far ahead of the June 30 deadline for FOA as possible. Congress wrote a termination clause for FOA in the appropriation bill last session on foreign aid. FOA was established two years ago as successor agency to the Mutual Security Agency.

It was reported at one time that some of the functions of FOA which were of direct interest to the business and industry of the United States would be transferred to the Department of Commerce. No mention was made of this possibility in the President's letter, however.

Under the reorganization plan a new semi-autonomous organizational unit, to be known as the International Cooperation Administration, will be established in the State department to carry out the transferred functions.

The new agency will be headed by a director who will report directly to the Secretary of State and will, on the secretary's behalf, give supervision and direction to the mutual security operations performed within the department. The Secretary of State will be responsible for coordinating all mutual security programs, including coordination of those programs involving the Department of Defense.

Atomic Concern Is Formed; Gen. Smith to Be President

Gen. Walter Bedell Smith has been named chairman of the board and president of AMF Atomics Inc., a wholly-owned and newly-formed subsidiary of American Machine & Foundry Company, New York.

In announcing the formation of AMF Atomics Inc., and General Smith's appointment, Morehead Patterson, AMF president, said, "AFM plans to become the industrial department store for atomic energy equipment. In time, we hope to develop and supply equipment in virtually every aspect of the peaceful use of atomic energy."

Arthur V. Peterson, formerly director of the atomic energy department of AMF's engineering division, will be vice-president for operations of AMF Atomics Inc. Prior to coming with AMF in 1953, Mr. Peterson served for eleven years with the Atomic Energy Program and from 1947 through 1952 was in charge of the production of fissionable materials in AEC's division of production.

Rosenthal Bercow Changes Name to Robeco Chemicals

Rosenthal Bercow Company will henceforth be known as Robeco Chemicals, Inc. There will be no change in ownership management, personnel or policies. The executive offices will remain at the present location, 25 East 26th street, New York. The change of name has been made to better identify the firm with the product line it handles. The company will continue to handle, in addition to industrial and pharmaceutical chemicals, a complete line of natural products, oils and waxes. The "Robeco" trademark has been used for the past several years.

Ammonia Plant Construction Ceremonies Set for April 29

Groundbreaking ceremonies have been planned for April 29 by Escambia Bay Chemical Corporation for its new $30,000,000 petrochemicals plant near Pensacola, Fla. The facilities are expected to be on stream with nitrogen and ammonia output early in 1956. Sales of the plant's production of anhydrous ammonia, ammonium nitrate, nitric acid, nitrogen solutions and other products will be handled by Ashcraft-Wilkinson Company, Atlanta.

Hobbs Is New MCA Counsel

The Manufacturing Chemists' Association has appointed Claude E. Hobbs, jr., staff counsel, according to William C. Foster, president. For the past four years prior to his appointment, Mr. Hobbs had served as assistant parliamentarian to the House of Representatives. Mr. Hobbs has also had experience as an attorney with the Tariff Commission.

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Isotopes for Research Use To Receive Price Reduction

The Atomic Energy Commission announced last week that, effective July 1, prices of radio-active isotopes used in biomedical and agricultural research and research in medical therapy will be reduced to domestic users to 20 percent of the catalog price.

The new rates will not apply on materials used for routing clinical treatment. The reductions in prices followed similar action taken in 1948 with respect to radioactive materials used in cancer research and for cancer treatment.

'Mylar' Polyester Film Price Is Cut by duPont

E. I. duPont de Nemours & Co., Wilmington, Del., has announced a price reduction, effective immediately, of 35 cents a pound on all types and gauges of "Mylar" polyester film except 25-gauge, the thinnest film. The reduction, second since the company's new plant at Circleville, Ohio, went into commercial production last fall, puts "Mylar" in the price range of $2.50 a pound for heavier films to $4 a pound for the exceptionally thin 25-gauge.

Hexagon Chooses President

Hexagon Laboratories, New York, has announced three appointments, including that of Harold R. Frost as president. Mr. Frost will continue his duties as director of research and development. Seymour Cooperberg has been named secretary, and will continue in his previous capacity as production manager. Morton Serkin has been named vice-president and will be in charge of sales and purchases.

Technical Data Controls Tightened by Government

The Commerce department has acted to amend its regulation governing the export of unpublished technical data to exclude general scientific and educational activities from licensing controls. The action was taken following consultations with scientific organizations, private and governmental. The proposed amendment, which becomes effective when published in the *Federal Register*, excludes from validated licensing requirements the following categories of technical data:—

- The dissemination of scientific information not directly and significantly related to design, production, and utilization in industrial processes. Information thus exempted, includes correspondence and attendance at or participation in meetings.
- Instruction in academic institutions and academic laboratories.

The regulation, issued December 16, 1954, and effective January 15, 1955, is

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Climax Appoints Ekholm Manager of Sales Division

Lars E. Ekholm has been appointed manager of the sales division of Climax Molybdenum Company, New York. Mr. Ekholm has been associated with Climax Molybdenum since 1946. Since that time he has held several executive positions in the sales department, including that of foreign sales director. Before joining Climax, Mr. Ekholm spent fifteen years with Alan Wood Steel Company, where he served in the technical department as chief metallurgist and in the sales department in various sales and executive capacities.

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Price Index Moves Down

The overall OPD price index last week edged down 0.03 point to stand at 107.07.

The oils, fats and waxes market was weaker, but by a barely perceptible amount as advances and declines were reported about in balance, quantitatively. Copra, oleo oil and oleo stearine moved forward. Cocoa butter, greases, and lard declined, as did tallow, and carnauba and Japan waxes. Oils lowered in this section were castor, oiticica, palm, rapeseed, and crude and refined peanut. The textile and leather chemicals section recorded price advances for egg albumin in flake and powder form, but no reductions.

The industrial organic chemicals market reported acetone to be one of the few weak spots in the entire price structure, but made no actual change for this material. Most other materials were reasonably firm in price and were moving relatively well. Platinum metal was advanced in the heavy chemicals area. Mercury continued to ease as buying interest lagged in the face of currently high prices. The copper situation appeared no better last week, as the London market shot up again after having eased to levels comparable to American prices two weeks ago.

A single price change was noted in the coal chemicals group as monochlorobenzene dropped. Weakening price quotations were noted for bonemeal and tankage in the agricultural chemicals market. Argentine casein was lowered fractionally in the protective coatings section. Price advances for black, brown and yellow iron oxides were announced, to take place May 1, in response to mounting production costs.

A drop in the Group 3 price of propane was reported in the petroleum derivatives market, where it was noted that propane producers were attempting to move their stocks at a faster rate by means of the price reduction. There were no changes reported in the drugs, fine chemicals and botanicals section.

Sandalwood and spearmint were the only essential oils that moved forward. Lowered were oils of birchtar, cardamom, Java citronella, unrectified clove leaf, and Dalmatian sage. In this market, the report on aromatic chemicals noted higher quotations for amyl cinnamic aldehyde and for benzyl cinnamate. Movement in seeds and spices included advances for Ceylon cinnamon, Czech fennel seed, and African and Jamaican ginger. French celery seed, pimento, polish and Turkish poppy seed, and Spanish thyme seed price were reduced.

Prices Advanced

Copra, $2 per ton (76).
Egg albumin, flake, 8c. per lb. (70).
Powd., 8c. per lb.
Oil, oleo, ¾c. per lb. (76).
Sandalwood, 50c. per lb. (68).
Soybean, crude, ¼c. per lb. (76).
refd., ¼c. per lb.
Spearmint, 15c. per lb. (68).
Oleo stearine, ½c. per lb. (76).
Platinum, $1 per oz. (36).

Prices Reduced

Bonemeal, $2.50 per ton (43).
Cocoa butter, 2c. per lb. (76).
p-Dichlorobenzene, 2c. per lb. (43).
Greases, ½c. per lb. (76).
Lard, cash, ¼c. per lb. (76).
Mercury, $1 per flask (36).
Monochlorobenzene, 1½c. per lb. (44).
Nitrogenous tankage, $1 per unit-ton (43).
Oil, birchtar, rectified, 25c. per lb. (68).
Cardamom, NF, $1 per lb. (68).
Castor, ½c. per lb. (76).
No. 3, tech., 1¾c. per lb. (76).
No. 1, Brazilian, ¼c. per lb. (76).
Citronella, Java, 10c. per lb. (68).
Clove leaf, unrectified, 10c. per lb. (68).
Oiticica, ¼c. per lb. (76).
Palm, ¼c. per lb. (76).
Peanut, crude, ¼c. per lb. (76).
refd., ¼c. per lb. (76).
Rapeseed, ½c. per lb. (76).
Sage, Dalmatian, 15c. per lb. (68).
Propane, Group 3, ½c. per gal. (75).
Tallow, ⅛c. per lb. (76).
Tankage, N. Y., 25c. per unit-ton (43).
Wax, carnauba, No. 3 Ceara, refd., pure, 3c. per lb. (76).
tech., 1c. per lb.
Japan, 2c. per lb.

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:—

(100=1949 average)

April 22, 1955	April 15, 1955	April 23, 1954
107.07	107.10	109.50

Italian Organization Given Import-Export Bank Credit

Credit facilities in the amount of $20,000,000 have been made available by the Export-Import Bank of Istituto Mobiliare Italiano for purchase of United States machinery and equipment for a number of Italian chemical, metal-working and industrial firms, it was announced last week.

The credit will be extended over a period of ten years with payment on the principle to be concluded in five years, beginning in 1957. The breakdown of the proposed expenditures was not announced.

Potash Deliveries Set Another Record in '54

Deliveries of potash in North America during 1954 amounted to 3,522,213 tons of salts containing an equivalent of 2,059,643 tons K_2O, again a new record high, according to the American Potash Institute. This was an increase of 178,259 tons K_2O or 9 percent over 1953. Deliveries by the seven leading domestic producers were 1,909,255 tons K_2O, an increase of 11 percent over last year. Imports were 150,388 tons K_2O, a 5 percent decrease under last year.

Deliveries for agricultural purposes in the continental United States for 1954 were 1,834,810 tons K_2O, an increase of 171,568 tons over 1953. Canada received 76,265 tons K_2O, Cuba 5,113 tons, Puerto Rico 21,017 tons and Hawaii 18,252 tons. Exports to other countries amounted to 12,377 tons K_2O.

Agricultural Potash Shipments

In this country agricultural potash was delivered in forty-five states and the District of Columbia. Illinois, with over 216,000 tons K_2O, was the leading state, followed in order by Ohio, Indiana, Georgia, Virginia and Florida, each taking more than 100,000 tons K_2O during the year. Due to shipments across state lines, consumption does not necessarily correspond to deliveries within a state.

Agricultural potash accounted for over 95 percent of deliveries. Muriate of potash continued to be by far the most popular material, comprising nearly 93 percent of the total K_2O delivered for agricultural purposes, sulfate of potash and sulfate of potash magnesia over 7 percent and manure salts an insignificant percentage of deliveries.

Deliveries for chemical purposes in 1954 were 136,548 tons of muriate of potash, containing an equivalent of 85,921 tons K_2O, and 11,638 tons of sulfate of potash containing 5,888 tons K_2O. The total chemical deliveries of 91,809 tons K_2O were 4 percent of all potash deliveries, and 9,687 tons or 9 percent less than in 1953.

Fourth Quarter Deliveries

In the fourth quarter of 1954, deliveries totaled 980,469 tons of salts containing an equivalent of 567,770 tons K_2O, an increase of 25 percent compared to K_2O deliveries during the corresponding period in 1953. The continental United

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Chas. Pfizer & Co. Chooses Three New Board Members

Chas. Pfizer & Co. at its annual meeting in Brooklyn, N. Y., last week elected three new members of its board of directors. They are Allan J. Greene, director of commercial development; Edwin H. Smith, controller, and J. Jerome Thompson, manager of the firm's agricultural sales division.

Mr. Greene joined Pfizer in 1938 as a chemical engineer, and last year was appointed commercial development head. He had previously served as general production manager. Mr. Smith has been controller of Pfizer since 1952, and prior to that time he had served in a similar capacity with other concerns in the drug and cosmetic industry. Mr. Thompson, with Pfizer since 1949, became the company's agricultural chemical sales manager three years ago.

Reporting to the stockholders, John E. McKeen, Pfizer president, said that sales and earnings of the company for the first quarter were the highest for any like period in its 106-year history. According to preliminary figures, he said, first quarter sales reached $41,127,877, up 10 percent over the $37,318,100 total for the similar period a year ago. Net earnings, he added, were $3,877,061, against $3,438,258 in January-March of 1954.

Atlas Forms an Affiliate With Concern in England

Atlas Powder Company, Wilmington, Del., and Honeywill & Stein, Ltd., a British chemicals firm, have announced the formation of a jointly-owned company, Honeywill-Atlas, Ltd., according to a statement by Atlas president Ralph K. Gottshall.

The new company will make available from sterling sources sorbitol and a wide range of sorbitol derivatives and other surface active agents developed by Atlas. The American parent company will make available to the new affiliate its experience in the manufacture, sale and use of these materials. Honeywill-Atlas will make its headquarters at Devonshire House, London W. 1, with L. F. Harris as manager.

Arnold, Hoffman President and V. P.

W. Chester Cobb (right) has been elected president of Arnold, Hoffman & Co., Providence, R. I., succeeding Edwin H. Arnold, who had been president since 1937 and who now becomes chairman of the board of directors. Mr. Cobb has been with Arnold, Hoffman since 1934. Eric R. Herbertson (left) has been named to succeed Mr. Cobb as commercial vice-president. Harry G. Bruns, formerly treasurer, has been named financial vice-president and Dr. Firmin Reed, former director of research, has been elected technical vice-president, succeeding Thomas H. Roberts, who is retiring after thirty-three years.

Gulf Oil Corp. Establishes New Chemical Department

Gulf Oil Corporation, Pittsburgh, Pa., has established a chemical department to handle the company's expanding chemical activities. L. O. Crockett has been appointed general manager of the new unit.

The department will have overall responsibility for promoting Gulf's interests in the chemical field. It will have the specific duty for the marketing of chemical products, for the guidance of chemical research and process engineering, and the recommending of future chemical projects. The department will coordinate these functions with chemical manufacturing operations as carried on by other departments of the company.

Mr. Crockett will be assisted by Dr. Alexander Lewis, jr., as manager of chemical marketing, and by V. N. Hurd as director of chemical development. Prior to his recent appointment, Mr. Crockett was manager of the petrochemical activities unit and also manager of the technical division in the manufacturing department. The chemical department will take over the previous functions of the petrochemical activities unit.

Mr. Crockett started with Gulf in 1922

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Reichhold on Catalin Board

Catalin Corporation of America, New York, last week elected Henry H. Reichhold, chairman of Reichhold Chemicals, Inc., White Plains, N. Y., as a member of its board of directors. Last week's action reverses a stand taken by Catalin five months ago in denying Mr. Reichhold a directorship because of a possible conflict with the Clayton act (OPD, 11/8/54). Catalin, which makes a line of synthetic resins and oil additives, has plants in Fords, N. J., Calumet City, Ill., and Thomasville, N. C.

Spencer Is Expanding Facilities in Mississippi

Kenneth A. Spencer, president of Spencer Chemical Company, Kansas City, Mo., has announced a $1,500,000 expansion in nitric acid and "Spensol" ammoniating solution facilities at the company's Vicksburg, Miss., works. The expansion will be completed by next spring, and will also include additional solution storage facilities.

At present the Vicksburg works has sufficient nitric acid and "Spensol" capacity to convert 60 percent of the anhydrous ammonia produced at the works into "Spensol" solutions. Spencer stated that a portion of the ammonia produced at Vicksburg will continue to be marketed as such, but the new expansion will permit, if desirable at certain seasons of the year, the conversion of all the ammonia production to solutions, thereby providing greater flexibility and improved customer service.

The Vicksburg expansion will complement the construction of nitric acid and "Spensol" facilities now under way at the company's Henderson, Ky., ammonia works. The completion of the Henderson expansion is expected by July, at which time the company will be shipping ammoniating solutions from Henderson, Ky., Vicksburg, Miss., and Pittsburg, Kan.

Olin Mathieson Gets Blockson

Olin Mathieson Chemical Corporation, New York, will take over Blockson Chemical Company, Joliet, Ill., it was revealed last week by John Hanes, chairman of the finance committee of Olin Mathieson. The announcement confirmed an earlier report leaked through several New York banking houses. According to Mr. Hanes, the deal calls for an exchange of three-quarters of a share of Olin Mathieson stock for one share of Blockson.

P.A.'s-Eye View of Business

Composite view, April 24, of purchasing agents composing the Business Survey Committee of the National Association of Purchasing Agents.

The current business picture retains its "rosy" hue. Fifty-eight of the purchasing executives on the committee report increased production and 57 percent show an increase of new orders. This is even more favorable than the optimistic figures in March and, again, sets a new high since the 1950 Korean boom.

Commenting on the special question this month—"Is the present boom caused by consumer stockpiling?"—there was much divided opinion. Many believe that the easy credit situation, coupled with strikes and threatening clouds on the international scene, has been encouraging consumers to buy tomorrow's durable goods needs today. On the other hand, those who take the other side point to increased population, better buys, higher confidence in our economic situation, and general optimism. There certainly is no preponderant opinion reflected in the April reports of survey committee members.

Whatever the reason, employment is good; inventories are again being conservatively increased, and prices remain high. The world situation seems less critical, although touchy, and the threat of spring strikes is the greatest concern of the present boomlet.

Commodity Prices

Under the leadership of nonferrous metals, commodity prices continue to move moderately higher. In their April reports, 54 percent of the purchasing executives state that prices have risen—and this is the largest number reporting increases since February, 1951.

Throughout the reports, however, the underlying theme continues to be greater competition. Numerous instances are cited where competition has held prices of manufactured products in check, despite higher raw material costs.

Inventories

The trend of modestly bolstering inventories continues. The number reporting higher quantities on hand (31 percent) is the most significant since the big inventory buildup of 1950. However, reporting members are quick to point out that they are still most conscious of the need for

—Continued on page 62

Veterinary Drugs Rule Overhaul in Mill: USDA

The Department of Agriculture told drug makers last week that it plans to give greater weight to industry tests of veterinary biologicals. Dr. M. R. Clarkson, deputy administrator of the Agricultural Research Service of USDA, outlined the new inspection plan in an address before the fifteenth annual meeting of the Animal Health Institute in Washington.

Dr. Clarkson said "a comprehensive plan is now in the mill" to revamp the inspection force of veterinary biological products. "This plan," he explained, "takes into account the enormous growth of the industry and the great variety and complexity of the products. The plan involves giving greater weight to the tests made by companies, with check testing of the products under government supervision. It is being developed through the cooperation of the veterinary biologics industry."

Confirms Previous OPD Story

This disclosure by the ARA official confirmed an earlier report by the executive vice-president of the American Drug Manufacturers Association, Dr. Karl Bambach, that USDA may shift to a system of occasional factory inspections and spot checks (OPD, 4/18/55). Under the old system, veterinary ispectors were stationed in plants producting serum for hog cholera.

Dr. Clarkson intimated that one reason for the change is a "marked swing" from the use of serums to vaccines, which do not need the same kind of inspection. He said there were more than 1,299,000,000 doses of vaccine produced last year—nearly twenty-seven times as much as serum. In 1945 the ratio of vaccines to serums was four to one.

The changes, he said, reflect higher consumption of livestock—sparked by a rise in the population and "changes of eating habits brought by new knowledge of nutrition." In 1962, he added, the American people will require 3,300,000 more cattle, 2,300,000 more sheep and 9,000,000 more pigs just to supply the expected increase in population. "To produce this meat efficiently," he contended, "farmers need to control animal diseases and parasites, now costing around $2,000,000,000 a year. Biologics play an important role in the control of animal disease."

Recent Advances Are Cited

Citing advances in conquering animal diseases, Dr. Clarkson listed these regulatory programs:—

- A new vaccine placed on the market last year has helped cut down the danger of bluetongue in sheep.
- Brucellosis is being reduced by a new test which has established that vaccinating calves is effective and by increased production of the vaccine—called strain 19.
- Vesicular exanthema in hogs has been partially eradicated—chiefly by the cooking of the garbage fed to the animals.

Two agricultural economists expressed conflicting views over the merits of the Eisenhower-Benson farm program. Though neither speaker mentioned the administration's farm policy by name, one

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Canadian Chemical Company Bringing 'Firsts' to Dominion

Canadian Chemical Company, Ltd., has announced that a number of chemicals will be produced in Canada for the first time by mid-summer. The items will be produced at Canadian Chemical's Edmonton plant and will include the following:—Methyl isobutyl ketone, methyl isobutyl carbinol, methyl ethyl ketone, 3-methoxybutanol and 1,3 butylene glycol.

Robinson Ord, vice-president and general manager, announced that installation of additional equipment has been approved by the directors of the company to supplement existing facilities and that construction is now in progress. The production at Edmonton will make Canada self-sufficient for most of these products, according to Mr. Ord.

Carlisle Chemical Works Acquires Advance Solvents

Carlisle Chemical Works, Inc., Reading, Ohio, has announced the acquisition of Advance Solvents & Chemical Corporation, New York, and its subsidiary companies. Advance Solvents has manufacturing facilities in Jersey City, N. J. In addition to its domestic operation the company has a Canadian subsidiary, Advance Solvents & Chemical Corporation of Canada, Ltd., at St. Johns, Quebec, and carries on an export business through its subsidiary, Advance International, Ltd.

NM
CH_3NO_2

NE
$CH_3CH_2NO_2$

THE CSC NITROPARAFFINS

New Stars IN

to give new direction

to the chemical industry

2-NP
$CH_3CHNO_2CH_3$

1-NP
$CH_3CH_2CH_2NO_2$

PHYSICAL PROPERTIES

	NM (Nitromethane) CH_3NO_2	NE (Nitroethane) $CH_3CH_2NO_2$	1-NP (1-Nitropropane) $CH_3CH_2CH_2NO_2$	2-NP (2-Nitropropane) $CH_3CHNO_2CH_3$
Molecular Weight	61.04	75.07	89.09	89.09
Boiling Point at 760mm, °C	101.2	114.0	131.6	120.3
Azeotrope with Water, bp, °C	83.6	87.1	91.2	88.4
NP in azeotrope, % by weight	77.1	73.6	64.5	73.1
Vapor Pressure at 20°C, mm	27.8	15.6	7.5	12.9
Evaporation Rate, by volume*	139.0	121.0	88.0	110.0
Freezing Point, °C	−29.0	−90.0	−108.0	−93.0
Specific Gravity at 20/20°C	1.139	1.052	1.003	0.992
Density of Vapors (air = 1.00)	2.11	2.58	3.06	3.06
Weight per U.S. Gallon at 68°F, lb	9.48	8.75	8.35	8.24
Coefficient of Expansion, per °F	0.00064	0.00062	0.00056	0.00058
Refractive Index, n_D at 20°C	1.3818	1.3916	1.4015	1.3941
Surface Tension at 20°C, dynes/cm	37.0	31.3	30.0	30.0
Heat of Vaporization at 30°C, calc., cal/g	143.3	124.8	107.3	104.4
Heat Capacity at 25°C, cal/g	$0.422^{30°C}$	0.441	0.471	—
Dielectric Constant at 30°C	35.76	28.00	23.22	25.48
Ignition Temperature, °F	785.0	778.0	789.0	802.0
Flash Point, °F (Tag Open Cup)	112.0	106.0	120.0	103.0
pH 0.01M Aqueous Solution at 25°C	6.4	6.0	6.0	6.2
Solubility in Water at 20°C, % by volume	9.5	4.5	1.4	1.7
Solubility of Water in NP at 20°C, % by volume	2.2	0.9	0.5	0.6

*N-Butyl Acetate = 100

NP DERIVATIVES ALSO AVAILABLE

AB (2-Amino-1-butanol)
AEPD (2-Amino-2-ethyl-1, 3-propanediol)
AMPD (2-Amino-2-methyl-1, 3-propanediol)
AMP (2-Amino-2-methyl-1-propanol)
NB (2-Nitro-1-butanol)
NEPD (2-Nitro-2-ethyl-1, 3-propanediol)
NMPD (2-Nitro-2-methyl-1, 3-propanediol)
NMP (2-Nitro-2-methyl-1-propanol)
ALKATERGES
TRIS AMINO (Tris [hydroxymethyl] aminomethane)
TRIS NITRO (Tris [hydroxymethyl] nitromethane)
HAS (Hydroxylammonium Acid Sulfate)
HC (Hydroxylammonium Chloride)
HS (Hydroxylammonium Sulfate)

SAMPLES ON REQUEST

Here are the Nitroparaffins – NM(Nitromethane), NE(Nitroethane), 1-NP(1-Nitropropane) and 2-NP(2-Nitropropane). These four NP's have a potential range of usefulness unequalled by any other group of organic chemicals! CSC's new Nitroparaffin plant at Sterlington, La., will be on stream with increased volume starting August of 1955.

In many cases, they provide better and more economical methods of manufacturing well-known and widely used industrial chemicals. However, the majority of the reactions yield entirely new compounds. There are practically an unlimited number of products which can be prepared from the NP's. As solvents, they present an unusual combination of properties – they are medium-boiling, mild-odored and, most important of all, they have strong solvent power for a wide variety of substances, including many coating materials, waxes, resins, gums, dyes, fats and oils, and numerous organic chemicals. The CSC Nitroparaffins are chemistry's newest stars. They give new direction to the production of old products and the development of new.

CSC

COMMERCIAL SOLVENTS CORPORATION

260 MADISON AVENUE NEW YORK 16, N. Y.

INDUSTRIAL CHEMICALS

Association Meetings

This Week

American Zinc Institute, annual meeting Drake hotel, Chicago, April 28-29.

Association of Consulting Chemists and Chemical Engineers, symposium, Belmont-Plaza hotel, New York, April 26.

Chemical Bureau Alumni Association, Lexington hotel, New York, April 28.

Chlorine Institute, spring meeting and golf tournament, Seaview Country Club, Absecon, N. J., April 26-27.

National Academy of Sciences, annual meeting, Washington, D. C., April 25-27.

Scientific Apparatus Makers Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., April 24-28.

Air Pollution Control Association, annual meeting, Detroit, Mich., May 22-26.

American Association of Textile Chemists and Colorists, Atlantic City, N. J., September 22-25.

American Council of Independent Laboratories, annual meeting, Westward Ho hotel, Phoenix, Ariz., November 8-11.

American Institute of Chemical Engineers, Shamrock hotel, Houston, Tex., May 1-4; Lake Placid, N. Y., September 25-28; annual meeting, Statler hotel, Detroit, Mich., November 27-30

American Petroleum Institute, annual meeting, St. Francis, Fairmount, Palace and Mark Hopkins hotels, San Francisco, November 14-17.

American Pharmaceutical Association, annual convention, Miami Beach, Fla., May 1-6

American Pharmaceutical Manufacturers Association, annual convention, Greenbrier hotel, White Sulphur Springs, W. Va., June 6-8, mid-year meeting, Waldorf-Astoria hotel, New York, December 12-14.

American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 26-July 1.

Armed Forces Chemical Association, annual meeting, Cleveland hotel, Cleveland, Ohio, June 16-17.

Association of Consulting Chemists and Chemical Engineers, forum and annual meeting, Belmont Plaza hotel, New York, October 25.

Chemical Market Research Association, annual meeting, Plaza hotel, New York, May 18-19; Cavalier hotel, Virginia Beach, Va., September 22-23; joint meeting with CCDA, Carter hotel, Cleveland, Ohio, November 14-15.

Chemical Progress Week, May 16-21.

Chemical Specialties Manufacturers Association, mid-year meeting, Drake hotel, Chicago, May 15-17

Combined Pharmaceutical Contact Committee of ADMA and APMA, Sheraton-Park hotel, Washington, D. C., October 10-11.

Commercial Chemical Development Association, joint meeting with CMRA, Carter hotel, Cleveland, Ohio, November 14-15.

Drug, Chemical and Allied Trades section of the New York board of Trade, Pocono Inn, Pocono Manor, Pa., September 22-24.

Electrochemical Society, Sheraton-Gibson hotel, Cincinnati, Ohio, May 1-5.

Exposition of Chemical Industries, Commercial Museum and Convention Hall, Philadelphia, December 5-9.

Federal Wholesale Druggists Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., September 11-14.

Federation of Paint and Varnish Production Clubs, annual meeting, Statler hotel, New York, October 3-5.

Flavoring Extract Manufacturers Association, annual meeting, Edgewater Beach hotel, Chicago, May 22-25.

Forest Products Research Society, national meeting, Olympic hotel, Seattle, Wash., June 20-23.

Liquefied Petroleum Gas Association, annual meeting, Conrad Hilton hotel, Chicago, May 1-4.

Manufacturing Chemists Association, annual outing in conjunction with SOCMA, Greenbrier hotel, White Sulphur Springs, W. Va., June 9-11

Metal Powder Association, national meeting and show, Bellevue-Stratford hotel, Philadelphia, May 10-12.

National Association of Retail Druggists, annual convention, Atlantic City, N. J., October 16-20.

National Chemical Exposition, Public Auditorium, Cleveland, Ohio, November 27-30.

National Cottonseed Products Association, annual meeting, Jung hotel, New Orleans, La., May 23-24.

National Paint, Varnish and Lacquer Association, annual convention, Shoreham and Sheraton-Park hotels, Washington, D. C., October 31-November 2.

National Petroleum Association, annual meeting, Traymore hotel, Atlantic City, September 14-16.

National Plant Food Institute, Greenbrier hotel, White Sulphur Springs, W. Va., June 12-15.

Paint Industries' Show, Statler hotel, New York, October 3-5.

Proprietary Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., May 23-25

Society of Cosmetic Chemists, semi-annual technical meeting, Biltmore hotel, New York, May 13.

Society of the Plastics Industry, annual meeting and conference, cruise on the Queen of Bermuda, May 7-15.

Synthetic Organic Chemical Manufacturers Association, Commodore hotel, New York, May 11; annual outing in conjunction with MCA, Greenbrier hotel, White Sulphur Springs, W. Va., June 10-11; annual dinner, Commodore hotel, New York, December 1.

Toilet Goods Association, annual meeting, Waldorf-Astoria hotel, New York, May 10-12.

Welch, Holme & Clark Head

Louis S. Hirsch has been elected president of Welch, Holme & Clark Company, New York, succeeding the late Elias D. Stults. Others at a recent directors' meeting elected included:—Vice-president, Walter Dugan; treasurer and secretary, William G. Niblette, and assistant secretary, John A. Kaiser.

Devoe, Tennessee Products Majorities to Merritt-Chapman

Acquisition by Merritt-Chapman & Scott Corporation of majority interests ranging up to 94 percent in Devoe & Raynolds Company, New York Shipbuilding Corporation and Tennessee Products & Chemical Corporation, has been announced by Louis E. Wolfson, president and chairman, following expiration of concurrent M-C&S exchange offers.

The M-C&S offers, initially made to shareholders of the three companies on January 27, expired on April 15. Preliminary tabulations show, Mr. Wolfson said, they were accepted by holders of more than 96 percent and 83 percent respectively, of Devoe's class B common and class A stock, more than 88 percent of New York Shipbuilding, and over 94 percent of Tennessee Products.

Devoe & Raynolds and Tennessee Products will operate as members of Merritt-Chapman & Scott's chemical, paint and metallurgical division. Devoe has headquarters at Louisville, Ky., and eight plants. Tennessee Products operates thirteen plants in the south.

Late last week, as the contest for control of Montgomery Ward & Co. approached, Mr. Wolfson resigned as a director of Devoe. His action followed a challenge by Sewell Avery, present Ward chairman, who questioned whether Mr. Wolfson could, under the antitrust laws, serve as a director of Devoe and Ward, since both companies manufacture paint. Cecil Wolfson, a brother, and Alexander Rittmaster, a Wolfson adviser, also resigned from the Devoe board.

Plant Food Institute Outlines Its June Convention Program

Nationally-known leaders in the field of agriculture, industry and government will appear on the program for the preliminary convention of the National Plant Food Institute, to be held June 12 to 15 at the Greenbrier hotel, White Sulphur Springs, W. Va.

Presidents Russell Coleman of the National Fertilizer Association and Paul T. Truitt of the American Plant Food Council estimate that more than 800 fertilizer manufacturers, material producers, agricultural leaders and others will be present for the convention. The council and NFA will be consolidated into the National Plant Food Institute on July 1.

Registration will begin on Sunday, June 12, and the convention will get under way on Monday, the thirteenth, with a meeting of the institute's board of directors-elect and a forum featuring problems relating to fertilizer-pesticide mixtures, sponsored

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New Drug Institute Post Goes to John A. Pringle

John A. Pringle, a pharmaceutical consultant, has been appointed assistant to the director of the New Drug Institute, according to Arthur D. Herrick, director. Mr. Pringle is a member of the Association of Medical Directors and was, for a number of years, its secretary-treasurer. Since 1935 he has been active in product development and marketing in the drug industry.

Oil Chemists' Presidency To Colgate Research Man

W. A. Peterson, assistant director of the research and development department of Colgate-Palmolive Company, Jersey City, N. J., has been elected president of the American Oil Chemists' Society. Announcement of Mr. Peterson's election, which was conducted by mail balloting for the 1955-56 term, was made last week at the forty-sixth annual meeting of the

W. A. Peterson

group, held in the Roosevelt hotel, New Orleans, La.

Others elected included:—Vice-president, T. H. Hopper, head of the analytical, physical-chemical and physics section of the Southern Regional Research Laboratory of the Department of Agriculture in New Orleans; secretary, R. W. Bates, research and development chemist for Armour & Co., Chicago, and treasurer, A. F. Kapecki, secretary of Wurster & Sanger, Inc., Chicago, and secretary-treasurer of Wurster & Sanger International, Inc.

Also chosen were three members-at-large for the governing board. Re-elected

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Chemical Fertilizers Seen Cause of Farm Revolution

Chemical fertilizers have brought about a fifteen-year "revolution on the farm" which, despite current problems of overcapacity, points to a continuing long-term increase in crop yields and an accompanying period of growth for the fertilizer industry, Calvin Bullock, New York investment firm, reported last week in its publication *Perspective*.

By 1940, it was pointed out, "American agriculture had about reached the point where future population growth had to be met either by bringing new land into cultivation—a difficult and expensive process—or by increasing crop yields."

The accelerated development of chemical fertilizers, it was added, "enabled agriculture to increase its crop yields in order to meet the demand of the war and postwar period which increased not only because of population growth, but also by reason of greater per capita consumption made possible by higher personal income.

The combined effectiveness of farm mechanization and the increased use of fertilizers since 1940, it was pointed out, have improved farm efficiency. This has resulted in a drop in per capita acreage requirements from 2.0 to 1.86 acres and, "one farm worker now takes care of eighteen persons as compared with ten persons in 1940."

The rapid development of nitrogen, phosphorus and potassium as fertilizers,

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French Chemical Society's American Unit Elects Flett

The American section of the Societe de Chimie Industrielle has elected Lawrence H. Flett, a consultant, to its presidency. Other new officers chosen by the association are:—Vice-presidents, Robert S. Aries, a consultant, and Jean R. L. Martin, Coty Products Corporation; Canadian vice-president, Jean Kern, National Aniline Division of Allied Chemical & Dye Corporation; secretary-treasurer, Pierre Bouillette, Givaudan Corporation, and honorary secretary, Dr. Jerome Alexander, a consultant.

The new officers were elected to the board of directors, along with the following:—Prosper Cholet, General Chemical Division of Allied Chemical & Dye Corporation; Emil Ott, Hercules Powder Company, and Worth Wade, American Viscose Corporation.

Air Pollution Offense On Nat'l Front Urged

The formation of a national air pollution abatement committee made up of state and federal officials and industry representatives was proposed in Pasadena, Calif., last week by William C. Foster, president of the Manufacturing Chemists' Association, in a speech before the third National Air Pollution Symposium.

Mr. Foster suggested that the committee, which might possibly serve in an advisory capacity to the President, was necessary because air pollution, although local in nature, is sufficiently widespread to require "national consideration." In support of this proposal, Mr. Foster cited the following advantages:—

- Industry support to the pollution effort could be coordinated.
- With delegates from individual states and cities on the committee, local interests will be appropriately represented.
- The effort of the federal government from both the point of view of national health and the fact that the air is a resource will find a place through which it can achieve implementation and active support.
- Such a committee representing the best available thinking might be able to establish patterns which would serve as a guide for local regulations which might be deemed advisable.
- Research activities could be guided with duplication reduced to a minimum.
- Factions now existing, frequently at odds with each other, will have a meeting place for the settling of differences in open conference.
- The committee would provide a vehicle not only for collection of information on the subject but also for a national public information effort.

Not Industry's Fault Alone

In discussing what he termed "the air pollution dilemma," Mr. Foster observed that pollution has never been caused exclusively by industry and because of the increase in non-industrial air pollution ranging from auto exhausts to apartment house incinerators, the individual citizen has joined the community and industry as a polluter of the air. "This is the triumvirate which now causes pollution and is the triumvirate which will cause pollution to be abated," he said.

Referring to the cost of pollution, Mr. Foster said that in one way or another, either through higher prices or increased taxes, the individual citizen will ultimately pay the pollution bill. Industry each year, he said, spends in excess of $100,000,000 and in the chemical industry alone

—*Continued on page 64*

Flavor Makers Will Hear Management, Sales Talks

Talks on management, sales and production will feature the forty-sixth annual convention of the Flavoring Extract Manufacturers' Association, to be held May 22 through 25 at the Edgewater Beach hotel, Chicago.

C. C. Augustson, president of the Illinois Retail Grocers Association, will speak on "My Observations on the Merchandising and Sales of Flavoring Extracts in Grocery Channels." L. John Kutich, economist for the Federal Reserve Bank, will have as his topic, "Business Outlook."

Michael J. Thuma, of the law firm of Ross, Berchem, Schwantes & Thuma, will speak on "Product Liability" and Dr. Don Irish, of Dow Chemical Company, will have as his topic, "Testing for Toxicity in Laymen's Language."

"How Much Do You Spend on Advertising?" will be discussed by William F. O'Dell, president of Market Facts, Inc. James Gillett, assistant to the president of Victor Chemical Works, will have as his topic, "Use of Chemicals in Food." H. L. Janovsky, chairman of the FEMA food additives committee, will speak on the activities of that group.

Mattiello Memorial Lecture To Be Delivered by Dr. Mark

Dr. Herman Francis Mark, director of the Polymer Research Institute at the Polytechnic Institute of Brooklyn, has been selected to deliver the Joseph J. Mattiello Memorial Lecture at the annual meeting of the Federation of Paint and Varnish Production Clubs which will be held October 3, 4, and 5 at the Statler hotel, New York.

Dr. Mark has announced that the title of his paper will be "New Types of High Polymers and Their Application in Paints and Varnishes."

Important Riboflavin Development

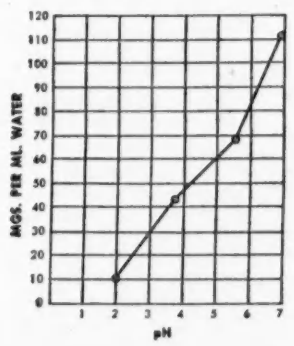
✓ Higher solubility ✓ Better taste

✓ No solubilizer needed ✓ Commercial production

Use ROCHE RIBOFLAVIN-5′-PHOSPHATE SODIUM

higher solubility

Now you can make clear solutions with a concentration of 30 mg. or higher per ml. of water when you use the new Roche riboflavin-5′-phosphate sodium. No longer do you need to use solubilizers and special techniques to achieve a satisfactory solution. Remember the trouble you had in getting a solution of even 2 mg. of riboflavin per ml.? Those days are now past.



SOLUBILITY of Roche riboflavin-5′-phosphate sodium in water at different pH levels; room temperature.

These data show that solubility of Roche B_2 phosphate sodium depends on hydrogen ion concentration in water. It is useful to note that the solubility of riboflavin U.S.P. (approximately 0.12 mg. per ml.) inserted on this graph would fall just above the base line.

SPECIFICATIONS Tests show that riboflavin-5′-phosphate sodium (M.W. 514.4) has the full theoretical activity on the molecular basis of riboflavin (M.W. 376.36). Theoretically one gram of the phosphate is equivalent to 0.73 grams of riboflavin. The Roche product contains small amounts of moisture, disodium salt, diphosphate ester and unesterified riboflavin. It has a riboflavin activity of 70-73% by weight.

USES The new riboflavin-5′-phosphate sodium, probably the most important riboflavin development since Roche introduced the vitamin commercially in 1941, is specially designed for use in manufacturing:

- vitamin parenteral solutions
- water-dispersible multivitamin drops and gelatin capsules
- tablets (in which rapidly-soluble riboflavin is desirable)

better taste

Roche riboflavin-5′-phosphate sodium does not have the intensely bitter taste of riboflavin itself. It is more palatable in high concentrations. This different taste characteristic is of definite advantage in oral preparations.

SOLUBILITY—TASTE DEMONSTRATION You can prove to yourself, easily and quickly, the solubility-taste advantages of Roche riboflavin-5′-phosphate sodium with the Roche demonstration kit. Ask your Roche representative to show it to you. Or we'll be glad to send one, without charge, at your request.

BIOLOGICAL AVAILABILITY Roche riboflavin-5′-phosphate sodium has immediate biological activity because it is identical with the natural flavin mononucleotide occurring in the "yellow" respiratory tissue enzyme system.

COST COMPARISON Even though the cost of Roche B_2-5′ is somewhat higher than regular riboflavin, its use can result in actual savings. You eliminate expensive solubilizers and unnecessarily large amounts of niacinamide. You reduce or eliminate costly complaints and returns. You are able to make manufacturing economies.

STABILITY

Roche riboflavin-5′-phosphate sodium (riboflavin-5′-phosphate ester monosodium salt dihydrate) in general has the same stability properties as riboflavin.

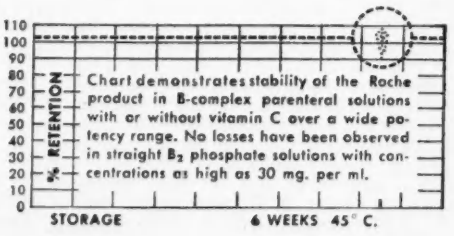


Chart demonstrates stability of the Roche product in B-complex parenteral solutions with or without vitamin C over a wide potency range. No losses have been observed in straight B_2 phosphate solutions with concentrations as high as 30 mg. per ml.

CALL **ROCHE** FOR VITAMINS

VITAMIN DIVISION
HOFFMANN-LA ROCHE INC.
NUTLEY 10, N. J., NUTLEY 2-5000

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San Francisco • Los Angeles • Seattle • Portland • Salt Lake City

In Canada: Hoffmann-La Roche Ltd.
286 St. Paul Street, West, Montreal, Quebec

Current Market Quotations

Chemicals and Related Materials

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Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, April 22 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Acacia (see Gum arabic).
Acenaphthene, below 92.5 C., m.p., dms. works lb. .40 - —
above 92.5 C., m.p., bbls., dms., works lb. .41 - .50
Acetaldehyde, 99%, dms., c.l., frt. equald lb. .1250 - .1435
l.c.l., frt. equald lb. .1350 - .1535
tanks, frt equald lb. .1050 - .1300
Acetaldol (see Aldol)
Acetanilide, tech., bbls., c.l., dlvd. lb. .29 - —
ton lots lb. .30 - —
smaller lots lb. .30½ - —
USP, bbls., 2,000-lb. lots lb. .80 - —
smaller lots lb. .81 - .86
Acetic anhydride, dms., c.l., dlvd E. lb. .15½ - —
l.c.l., dlvd E lb. .17 - —
tanks, dlvd E lb. .14 - —
Acetoacetanilide, fib, dms., c.l., dlvd lb. .80 - —
l.c.l., dlvd lb. .81 - —
Acetoacet-o-chloroanilide, fib., dms., c.l., dlvd lb. 1.35 - —
l.c.l., dlvd lb. 1.36 - —
Acetoacet-o-toluidide, fib., dms., c.l., dlvd lb. .82 - —
l.c.l., dlvd lb. .83 - —
Acetone, CP, dms., c.l., dlvd. lb. .09 - —
l.c.l., dlvd. lb. .10 - —
tanks, dlvd. lb. .07 - —
Methyl (see M)
Acetonitrile, dms., c.l., works lb. .45 - —
l.c.l., works lb. .47 - —
Acetophenetidin, USP, bbls., works, frt equald lb. 1.17 - 1.19
Acetophenone, cns, dms lb. 1.21 - 1.85
tech., dms., l.c.l., works lb. .75 - —
N-Acetyl-p-aminophenol dms., frt. adjusted lb. 1.75 - 1.85
Acetyltributyl citrate, tech., non-ret, dms., c.l., frt. alld. E. of Denver lb. .35 - —
l.c.l., frt. alld. E. of Denver lb. .35 - —
tanks, frt. alld. E. of Denver. lb. .33 - —
Acetyltriethyl citrate, tech., non-ret, dms., c.l., frt. alld. E. of Denver lb. .39 - —
l.c.l., frt. alld E. of Denver. lb. .40 - —
tanks, frt. alld. E. of Denver. lb. .37 - —
Acid, abietic, coml., dms., c.l., works lb. .12 - —
l.c.l., ex whse lb. .1490 - —
cryst., dms. c.l. works lb. .06½ - —
l.c.l. works lb. .07 - .07½
Acetic, coml., or redist., 28%, bbls. 100 lbs. 4.80 - —
56%, bbls 100 lbs 8.25 - —
70%, bbls 100 lbs. 9.95 - —
80% bbls 100 lbs. 10.45 - —
glacial, syn., CP, dms., dlvd. 100 lbs. 15.00 - 16.00
tech. dms., c.l., dlvd 100 lbs. 12.00 - —
l.c.l., same basis 100 lbs. 13.00 - —
tanks, dlvd 100 lbs. 10.00 - —
USP chys., inclusive, dlvd., 100 lbs. 24.00 - 25.00
Acetic anhydride (see Acetic anhydride above)
Acetylsalicylic, USP, special, makers, primary distrib., bbls., 1,000-lb. lots, point of shipt lb. .63 - —
standard, fine, cryst., gran., (30-40 mesh) powd., (80 mesh), bbls., 1,000-lb. lots. lb. .58 - .60

Freight equald, shipt, identical quantity over standard routes, from N. Y., Phila., Midland, Mich., Chicago and St. Louis.

Adipic, fib, dms., c.l., dlvd lb. .35 - —
l.c.l., dlvd lb. .37½ - —
Aminoacetic, NF, bbls., frt. adjusted lb. 1.50 - 1.75
p-Aminobenzoic, tech., dms., works lb. 1.74 - 1.77
USP, dms., 1,000-lb. lots or more, works lb. 2.50 - —
smaller lots, works lb. 2.55 - 2.60
p-Aminosalicylic, dms., 1,000-lb. lots or more, frt. adjusted lb. 4.00 - —
smaller lots, same basis lb. 4.05 - 4.50
Anthranilic, bbls, frt. equald lb. 1.21 - —
Arsenous, tech., (see Arsenic, white, USP (see Arsenic trioxide).
Ascorbic USP dms., 25-100 kilo lots. kilo. 16.00 - —
10-kilo lots kilo. 16.35 - —
5-kilo lots kilo. 16.75 - —
bots 1-kilo lots kilo. 17.00 - —
500-gram lots kilo. 17.50 - —
Battery, cbys., c.l., works, E. 100 lbs. 2.35 - —
l.c.l., works, E 100 lbs. 2.65 - 3.45
Benzoic, tech., bbls., dms., 100-lb. lots or more lb. .44 - —
USP, bbls., dms., 100-lb. lots or more lb. .54 - —
Betahydroxynaphthoic (see Acid, b-Oxynaphthoic).
Betaoxynaphthoic (see Acid b-Oxynaphthoic).
Boric, tech., 99½%, cryst., bgs., c.l., works ton. 124.25 - —
ton lots, ex whse, N. Y. or Chi ton. 172.00 - —
smaller lots, same basis. ton. 177.00 - —
bbls., c.l., works ton. 148.75 - —
ton lots, ex whse, N. Y. or Chi ton. 196.50 - —
smaller lots, same basis. ton. 201.50 - —
gran., bgs., c.l., works ton. 99.25 - —
ton lots, ex whse, N. Y. or Chi ton. 147.00 - —
smaller lots, same basis. ton. 152.00 - —
bbls., c.l., works ton. 123.75 - —
ton lots, ex whse, N. Y. or Chi ton. 171.50 - —
smaller lots, same basis. ton. 176.50 - —
bulk, c.l., works ton. 94.25 - —
Acid, boric, tech., powd., bgs., c.l., works ton. 104.25 - —
ton lots, ex whse, N. Y. or Chi ton. 152.00 - —
smaller lots, same basis. ton. 157.00 - —
bbls., c.l., works ton. 128.75 - —
ton lots, ex whse, N. Y. or Chi ton. 176.50 - —
smaller lots, same basis. ton. 181.50 - —

Boric acid in kegs $45.50 per ton higher than in paper bgs. USP boric Acid $25 per ton higher.

Broenners bbls lb. 1.76 - —
Butyric, 99%, dms., c.l., works, lb. .34 - —
l.c.l., works lb. .34½ - —
tanks, works lb. .32½ - —
Capric, dms lb. .24 - .26
Caprylic, dms. lb. .24 - .26
Cassella, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Castor oil, split, dms lb. .35½ - .36
Chicago, bbls. frt alld lb. 3.21 - —
Chloroacetic, mono-, purif., flake, 99%, dms lb. .23½ - .25½
tech., flake, 96-97%, frt. equald, dms lb. .20 - .21
o-Chlorobenzoic, fib. dms., works lb. 1.13 - —
p-Chlorobenzoic, fib dms., works lb. 1.59 - 1.62
Chlorosulfonic, dms., c.l., frt. equald lb. .0465 - —
l.c.l., frt. equald lb. .0515 - —
tanks, frt. equald lb. .0415 - —
Acid, chlorosulfonic, in stainless steel dms. ½c. per lb. higher.
Cholic, 100-lb. lots, fib. dms. lb. 6.00 - 6.25
Chromic 99¾%, dms., c.l., works lb. .27½ - —
l.c.l., works lb. .28 - .29
NF (see Chromium trioxide).
Cinnamic, refd., bots lb. 2.50 - 3.50
Citric, USP, anhyd., gran., fine gran dms c.l lb. .28¾ - —
10,000-lb. lots, 1 shipt. lb. .29¼ - —
smaller lots lb. .29¾ - .31¼
Acid, citric, USP, hydrous, gran., fine gran., dms., c.l lb. .27 - —
10,000-lb. lots, 1 shipt. lb. .27½ - —
smaller lots lb. 28 - 29½
Powdered citric acid ½c. higher
Cleve's, mixed, bbls lb. .79 - —
Coconut oil, dist., dms lb. .25 - .27
tanks lb. .23 - —
dbl. dist., dms lb. .25¾ - .27¼
tanks lb. .23¾ - —
Corn oil, dist., dms lb. .15¾ - .17¾
tanks lb. .1350 - —
Cottonseed oil, dist., dms lb. .1525 - .1725
tanks lb. .1325 - —
2,3-Cresotic, dms., ton lots, works lb. .66 - —
smaller lots lb. 1.82 - 2.00
Cresylic, coaltar, dom., 50% 207 C or above, ret dms, c.l. frt. equald gal. 98 - —
l.c.l., same basis gal. 1.03 - —
non-ret, dms, c.l., same basis gal. 1.01 - —
l.c.l., same basis gal. 1.04 - —
tanks, same basis gal. .90 - —
204° to 207 C., ret., dms., c.l. same basis gal. 1.03 - —
l.c.l., same basis gal. 1.08 - —
non-ret, dms, c.l. same basis gal. 1.06 - —
l.c.l. same basis gal. 1.09 - —
tanks, same basis gal. .95 - —
Imp. 75% at 215 C. or over, dms ex whse gal. .75 - .90
petroleum, dom., 195° to 214°C., non-ret, 65 dms, to c.l., works, San Francisco and Los Angeles gal. .75 - —
l.c.l., same basis gal. .77 - .79
tanks, works, frt. alld. E. gal. .71 - —
200° C to 222° C., tanks, Wilmington, Cal gal. .62 - .69
211° C to 237° C., non-ret, dms, c.l., San Francisco and Los Angeles gal. .67 - —
l.c.l., same basis gal. .69 - .71
tanks, same basis gal. .54 - —
220° C. to 242° C., tanks, Wilmington, Cal gal. .54 - .59
245° C. to 298° C., tanks, Wilmington, Cal gal. .50 - —
Crotonic, fib, dms., 200 lbs. or more, works lb. .50 - —
Cyanoacetic, tech., bbls lb. .90 - 1.25
Dehydrocholic, injection, fib dms. 100-lb. lots lb. 12.25 - —
oral, fib, dms., 100-lb. lots lb. 9.25 - —
Acid, desoxycholic, fib, dms., 100-lb. lots lb. 14.00 - —
Dichlorophenoxyacetic (see under D 2,4 D)
Diethylbarbituric (see Barbital)
Diglycolic bgs works lb. .14 - —
2-ethyl hexoic, dms., c.l., works lb. .36½ - —
l.c.l., works lb. .37½ - —
tanks, works lb. .34½ - —
F, crude, paste, bbls., works lb. 2.10 - —
Folic, bots fib ens kilo-lots or more gram. 1.40 - —
Formic, 85% chys., c.l., works lb. .1570 - —
l.c.l., works lb. .1620 - .1720
90% chys c.l. works lb. .1625 - —
l.c.l. works lb. .1675 - .1775
Fumaric tech., bgs., dms lb. .27 - .29
Gallic, NF VII bots, 1,000-lb lots lb. .80 - —
smaller lots lb. 1.82 - 2.00
tech., bbls., 1,000-lb. lots lb. 1.58 - —
smaller lots lb. 1.69 - 1.75
Gamma, dry, grd. bbls., frt. alld. lb. 1.50 - —
paste, bbls frt alld lb. 1.45 - —
Gentisic, 100-lb fib dms lb. 8.50 - —
Gluconic, tech., 50% bots lb. .25 - .35
cks lb. .19 - —
dms. lb. .15½ - —
l-Glutamic, 99½% fib. dms., 100-lb lots works lb 2.45 - 2.53
25-lb lots, works lb 2.54 - 2.60
Glycerophosphoric, 35%, dms., works lb. 2.25 - 2.35
Glycolic (see Acid hydroxyacetic).
H, dry, bbls., c.l., works, 100% basis lb. 1.00 - —
l.c.l., same basis lb. 1.02 - —
Hydriodic, 1.50 s.g., chys lb 2.94 - —
1.70 s.g., chys lb. 3.23 - —
Hydrocinnamic medicinal, 48%, drums, works and E lb .37 - .43
Hydrochloric, anhyd (see Hydrogen chloride).
18° chys., c.l., works 100 lbs 2.50 - —
l.c.l. dlvd Metropolitan area 100 lbs 2.90 - 3.05
tanks, works, frt equald ton 28.00 - —
20° chys., c.l., works 100 lbs. 2.75 - —
l.c.l. dlvd Metropolitan area 100 lbs. 3.15 - —
tanks, works, frt equald ton 30.00 - —
22° chys., c.l., works 100 lbs. 3.25 - —
l.c.l. dlvd Metropolitan area 100 lbs. 3.65 - —
tanks, works, frt equald ton 33.00 - —
CP USP, consumers, chys., extra c.l. works lb. 11¾ - —
l.c.l. same basis lb. 13¼ - 13¾
5-pint bots., extra, cs., c.l., same basis lb 16¾ - —
l.c.l., same basis lb. 18¼ - 19¼
Acid, hydrocinnamic, CP USP prices to dealers 1 2c per lb less.
Hydrocyanic, cyls. frt alld lb. .75 - .95
dilute NF 2% 5 lb bots lb .40 - —
Hydrofluoric, anhyd. (see Hydrogen fluoride).
tanks, works lb. .21 - —
70° c. steel dms., works lb. .18½ - .22½
Hydrofluosilicic, basis 30%, dms., works lb. .06 - —
Hydroxyacetic, tech., 70%, non-ret. bbls., Phila., 100% basis lb. .136 - —
tanks, Belle, W Va., 100% basis lb. .095 - —
Hypophosphorus, purif., 50% chys lb. 1.30 - 1.32
USP, chys lb 88 - —
Isonicotinic 100 lb fib dms works lb. 5.00 - —
Itaconic, fib, dms., c.l., works lb. .59 - —
l.c.l., works lb. .60 - —
Hydrazide (see Isoniazid).
J, bbls., works, 100% basis lb. 2.50 - 2.85
Koch, bbls., frt. alld lb. .64 - .70
L, bbls., works lb. 1.25 - —
Lactic, edible, 50%, bbls., 20 or more lb. .1754 - .215
smaller lots lb. .1854 - .225
80%, bbls., 5 or more lb. .3054 - .37
smaller lots lb. .3104 - .375
USP, 85%, chys. lb. .85 - .88
plastic grade 50%, bbls., 20 or more, works lb. .23 - —
1 to 19 lb. .235 - —
80%, bbls., 5 or more lb. .385 - —
tech., 22%, bbls., c.l., works 100 lbs. 6.30 - —
l.c.l., works 100 lbs. 6.70 - —
chys., l.c.l., works 100 lbs. 12.20 - —
44%, bbls., c.l., works 100 lbs. 11.45 - 11.95
l.c.l., works 100 lbs. 11.85 - 12.35
Laurent's, bbls lb. .60 - —
Lauric, dms lb. .36¼ - .38¼
Linseed oil, dist., dms lb. .1815 - —
w.w., dms lb. .2115 - —
Maleic, cryst., powd., dms lb. .37 - .38
Malic, tech., dms lb. .70 - —
Mandelic, NF, dms., 1,000-lb. lots. lb. 2.35 - —
smaller lots lb. 2.40 - 2.50
Metanilic, dms., works lb. .57 - .75
Methacrylic, glacial, 98%, dms., truckloads, works lb. .54½ - —
smaller lots, works lb. .55 - —
Molybdic, 85-92%, dms., works lb. 1.32 - —
Monochloroacetic purif. (see Acid, Chloroacetic mono-).
Muriatic (see Acid, hydrochloric).
Myristic, dms lb. .28 - .29¾
Naphthenic, 220-230 acidity, dms., works lb. .13¼ - —
tanks, works lb. .11½ - —
Naphthol (1)-4-sulfonic (see Acid Nevile and Winthers).
Naphthol(1)-5-sulfonic (see Acid, L).
Naphthol(1)-5-sulfonic,3-amino (see Acid S).
Naphthol(1)-3,6-disulfonic,8-amino (see Acid H).
Naphthol(2)-6,8-disulfonic (see Acid, Gamma)
(5)-7-Sulfonic,2-amino (see Acid, J)
Napntholsulfonic, mixed (see Acid, Cleve's mixed).
Naphthylamine(1)-5-sulfonic (see Acid, Laurent's)
(2)-6-sulfonic (see Acid, Broenner's).
(2)-7-sulfonic (see Acid, F).
(2)-1-sulfonic (see Acid, Tobias).

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	NNR	New and Nonofficial Remedies
amorph.	amorphous	djns.	demijohns	No.	number
AMP	American melting point	dlvd.	delivered	nom.	nominal
anhyd.	anhydrous	dms.	drums	o-	ortho
a.p.a.	available phosphoric acid	dom.	domestic	ord.	ordinary
approx.	approximately	E.	east	oz.	ounce
artif.	artificial	e.p.	end point	p-	para
ASTM	American Society for Testing Materials	equald.	equalized	Pac.	Pacific
Atl.	Atlantic	exp.	expressed	pf.	proof
Be.	Baume	F.	fahrenheit	phos.	phosphate
bbls.	barrels	ferment.	fermentation	photo.	photographic
bgs.	bags	f.f.a.	free fatty acid	pkgs.	packages
bls	bales	f.f.c.	free from chlorine	powd.	powdered
bots.	bottles	fib.	fiber	precip.	precipitated
b.p.	boiling point	f.o.b.	free on board	prod.	producer
b.p.l.	bone phosphate of lime	f.p.a.	free of prussic acid	pt.	point
b.r.	boiling range	frt.	freight	pulv.	pulverized
bxs.	boxes	gal.	gallon	purif.	purified
C.	centigrade	gran.	granular	redist.	redistilled
cbys.	carboys	grd.	ground	refd.	refined
CD	completely denatured	i.&a.	iron and aluminum	refy.	refinery
c.i.f.	cost, insurance, freight	i.b.p.	initial boiling point	reg.	regular
cks.	casks	imp.	imported	resub.	resublimed
c.l.	carlots	incl.	included	ret.	returnable
cns.	cans	indust.	industrial	SD	specially denatured
coml.	commercial	kgs.	kegs	s.d.	single distilled
conc.	concentrated	l-	laevo	S. E.	southeast
CP	chemically pure	lacq.	lacquer	sec.	secondary
cps.	centipoises	lb.	pound	secs.	seconds
cryst.	crystal	l.c.l.	less than carlots	s.g.	specific gravity
cs.	cases	l.t.l.	less truckload	ship't	shipment
ctns.	cartons	liq.	liquid	soln.	solution
cyls.	cylinders	mfrs.	manufacturers	s.u.	standard unit
d-	dextro	m-	meta	syn.	synthetic
dbl.	double	m.a.p.	mixed aniline point	tanks.	railroad tankcars
denat.	denatured	min.	minimum	tech.	technical
dest-dist.	destructive-distilled	m.p.	melting point	tert-	tertiary
dl-	dextro-laevo	N-	nitrogen	t.l.	truck loads
dist.	distilled	n-	normal	t.w.	tank wagons
		nat.	natural	USP	U. S. Pharmacopoeia
		neut.	neutral	vis.	viscosity
		NF	National Formulary	VM&P	varnish makers & painters
				W.	west
				whse.	warehouse
				w. w.	water-white

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Acid, Nevile & Winther's—Alcohol, Diacetone

Acid, Nevile and Winther's, dms., frt. alld lb. 1.20 - —
Nicotinic, USP, dms., frt. adjusted kilo 8.00 - 8.30
Amide, USP, (see Nicotinamide).
Nitric 36° Be chys., c.l., works, E. 100 lbs. 5.75 - —
l.c.l., works, E 100 lbs. 6.05 - 6.85
38° Be chys., c.l., works, E. 100 lbs. 6.25 - —
l.c.l., works, E 100 lbs. 6.55 - 7.35
40° Be, chys., c.l., works, E. 100 lbs. 6.75 - —
l.c.l., works, E 100 lbs. 7.05 - 7.85
42° Be chys., c.l., works, E. 100 lbs. 7.25 - —
l.c.l., works, E 100 lbs. 7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
CP, NF, consumers, chys., extra c.l., works lb. .13½- —
l.c.l., same basis lb. .15 - .15½
5 pint bottles, extra, cs., c.l., same basis lb. .17½- —
l.c.l., same basis lb. .19 - .25
p-Nitrobenzoic, dms., c.l., works lb. .72 - —
l.c.l., works lb. .73 - —
Oleic, s.d., dms lb. .17½- .19½
tanks lb. .15½- —
dbl. dist. (white), dms lb. .20 - .22
tanks lb. .1800- —
Oleum (see Acid, sulfuric, fuming).
Orthochlorobenzoic (see Acid, o-Chlorobenzoic).
Orthocresotinic (see Acid, 2,3-Cresotic).
Oxalic, bbls., c.l., works lb. .16½- —
10,000-lb. lots, works lb. .16¾- —
smaller lots, works lb. .17¾- —

Acid, b-oxynaphthoic, bbls., works lb. 1.14 - —
Palm oil, dbl., dist., dms lb. .14¼- .16¼
Para-aminobenzoic (see Acid, p-Aminobenzoic)
Para-aminosalicylic (see Acid, p-Aminosalicylic).
Parachlorobenzoic (see Acid, p-Chlorobenzoic)
Paramethylphenylcinchonic (see Neocinchophen)
Paranitrobenzoic (see Acid, p-Nitrobenzoic)
Paratoluidinmetasulfonic (see Acid, p-Toluidine m-sulfonic)
Phenylacetic, pure, cryst. cns. lb. .75 - 1.70
Phenylcinchoninic (see Cinchophen).
Phenylglycolic (see Acid, mandelic).
Phosphoric, food grade, 75%, chys., c.l., frt. alld E 100 lbs. 6.50 - —
l.c.l., works 100 lbs. 7.25 - —
tanks, works 100 lbs. 5.10 - —
NF, 85%, chys., c.l., works lb. .08 - —
l.c.l., works lb. .08½- —
Picric, NF, bbls. lb. .60 - —
tech., bbls. lb. .34 - .35
Propionic, syn., pure, dms., c.l., works lb. .21 - —
l.c.l., works lb. .22 - —
tanks, works lb. .19 - —
Pyrogallic, NF, (see Pyrogallol).
tech., bbls lb. 2.76 - 2.99
Ricinoleic (see Acid, castor oil, split).
S., bbls., works lb. 3.25 - —
Salicylic, crude, fib. dms lb. .37 - —
sublimed, tech., fib. dms., c.l. lb. .39 - —
l.c.l. lb. .46 - —
dyestuffs grade, fib. dms lb. .41 - —
USP, cryst., fib. dms lb. .48 - —
powd., fib. dms lb. .53 - —
Sebacic, purif., dms., c.l., works lb. .64 - —
l.c.l., works lb. .66 - .70

Acid, soybean oil, dbl. dist., dms lb. .18 - .20
tanks lb. .1600- —
s.d., dms lb. .16½- .18¼
tanks lb. .14½- —
Stearic, dbl. pressed, bgs lb. .14¼- .16¼
single pressed, bgs lb. .13¾- .15¾
triple pressed, bgs. lb. .16½- .18½
Succinic, purif., cryst., bbls., works lb. .62 - .75
Sulfanilic, tech., dms., c.l., frt. alld lb. .19 - —
l.c.l., frt. alld lb. .21 - —
Sulfuric, 60° Be, chys., c.l., works 100 lbs. 2.00 - —
l.c.l., works 100 lbs. 2.45 - —
tanks, works ton. 18.60 - —
66° Be, chys., c.l., works, 100 lbs. 2.25 - —
l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton. 22.35 - —
98%, tanks, works ton. 23.50 - —
99-100%, tanks, works ton. 23.95 - —
CP, NF, consumers chys. extra, c.l., works, frt. equald lb. .09¾- —
l.c.l., same basis lb. .11¼- .11¾
5 pt. bots., extra cs., c.l., works, frt. alld lb. .13¼- —
l.c.l., same basis lb. .14¾- .20¾
oleum, 20%, tanks, works ton. 25.00 - —
40%, tanks, works ton. 29.00 - —
65%, tanks, works ton. 39.50 - —
Tallow, dist., dms lb. .14¼- .16¼
hydrogenated, bgs lb. .13¼- .15¼
Tannic, NF, fluffy, bbls., 1,000-lb. lots lb. 1.80 - —
smaller lots lb. 1.81 - 1.85
powd., bbls., 1,000-lb. lots lb. 1.70 - —
smaller lots lb. 1.71 - 1.76
tech., dms lb. .95 - —

Acid, tartaric, USP, dom., 230 or 250-lb. dms., c.l lb. .44 - —
10,000-lb. lots, 1 shipt lb. .44½- —
smaller lots lb. .45 - —
100-lb. dms lb. .46 - —
small dms. lb. .48 - .54
imp., bgs lb. .38 Nom.
Thioglycolic, refd., chys., 100% basis lb. 1.35 - 1.55
Tobias, bbls., frt. alld lb. .77 - —
Toluenesulfonic, dms., c.l., works, lb. .16 - —
l.c.l., works lb. .17½- —
p-Toluene sulfonic, monohydrate, dms., c.l., or t.l. lb. .90 - —
125 lbs. to t.l. lb. 1.00 - —
p-Toluidine-m-sulfonic, bbls., works lb. .92 - 1.04
Trichloroacetic, bots. lb. 2.50 - 2.50
Trichlorophenoxyacetic (see under '2',4,5T)
Tungstic, tech., kgs., works lb. 4.25 - —
Undecylenic, dms lb. 1.40 - —
Aconite root, bls lb. .50 - .55
Aconitine, cryst., potent, bots oz. 78.00 - 85.00
Acrolein, tech., dms., c.l., works lb. .47 - —
l.c.l., works lb. .47½- —
Acrylonitrile, dms., c.l., works lb. .33 - —
l.c.l., works lb. .34 - —
tanks, works lb. .31 - —
ACTH, cryst., bulk, 1,000 units/gram, bots gram 15.00 - —
Adeps lanae (see Lanolin).
Adrenocorticotropic hormone (see ACTH).
Agar, USP, Kobe No. 1, strip, bls. lb. 3.00 - 3.25
powdered, 30 mesh, fib., dms lb. 3.40 - 3.50
dl-Alanine, dms., works lb. 8.50 - 11.00
Albumin, blood, dark (see Blood, dried, soluble).
light, dms., c.l lb. .65 - .90
Egg, edible, flake, bbls lb. 1.64 - 1.68
powd., bbls lb. 1.68 - 1.72
tech., cryst., bbls lb. .70 - .85
Alcohol, allyl, dms., c.l., dlvd lb. .32 - —
l.c.l., dlvd lb. .33 - —
tanks, dlvd lb. .30 - —
Amyl, ex fusel oil (see Fusel oil, refd.)
ferment., refd., 128°132°C., dms., l.c.l., dlvd lb. .43 - —
ACS grade, dms., c.l., dlvd lb. .45 - —
ex-pentane, mixed, amyls, dms., c.l., frt. alld lb. .17 - —
l.c.l., frt. alld lb. .18 - —
tanks, frt. alld lb. .15 - —
primary, dms., c.l., frt. alld. lb. .19¼- —
l.c.l., frt. alld lb. .20¼- —
tanks, frt. alld lb. .17¼- —
sec-synthetic, dms., c.l., frt. alld., works lb. .18 - —
l.c.l., works lb. .19 - —
tanks, works lb. .16 - —
tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
l.c.l., frt. alld. E lb. .18 - —
tanks, frt. alld. E lb. .15 - —
1-pentanol, (syn. normal), dms., c.l., works lb. .42 - —
l.c.l., works lb. .43½- —
tanks, works lb. .40 - —
2-pentanol, dms., c.l., works lb. .65 - —
l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Benzyl, NF, dms lb. .64 - .79
tech., dms., dlvd lb. .47½- .49
n-Butyl, ferment., dms., l.c., frt. alld lb. .15 - —
l.c.l., frt. alld lb. .16 - —
tanks, frt. alld lb. .13 - —
n-synthetic, dms., c.l., dlvd. lb. .15 - —
l.c.l., dlvd lb. .16 - —
tanks, dlvd lb. .13 - —
sec-synthetic, dms., c.l., dlvd. lb. .13 - —
l.c.l., dlvd lb. .14 - —
tanks, dlvd lb. .11 - —
tert-synthetic, dms., c.l., frt. alld. lb. .14 - —
l.c.l., frt. alld lb. .15 - —
tanks, works lb. .12 - —
Capryl, 85%, dms., c.l., works lb. .18 - —
l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
95%, dms., c.l., works lb. .19½- —
l.c.l., works lb. .20 - —
tanks, works lb. .18 - —
Cetyl, extra, bb. cns., 500-lb. lots or more lb. .73 - —
smaller lots lb. .80 - 1.15
NF, bb. cns., 140-lb. lots or more lb. .58 - .82
smaller lots lb. .59 - .82
Cinnamic, bots lb. 2.15 - 2.75
Decyl, bots lb. 1.75 - 2.00
indust. (see 1-Decanol).
Denat., CD12, CD13, CD14, CD17, dms., c.l., dlvd. E. of Rockies gal. .54½- —
l.c.l., same basis, gal. .59½- .65¼
tanks, dlvd. same basis, gal. .41½- —

Tankcar sales require written authorization by Alcohol and Tobacco Tax Unit.

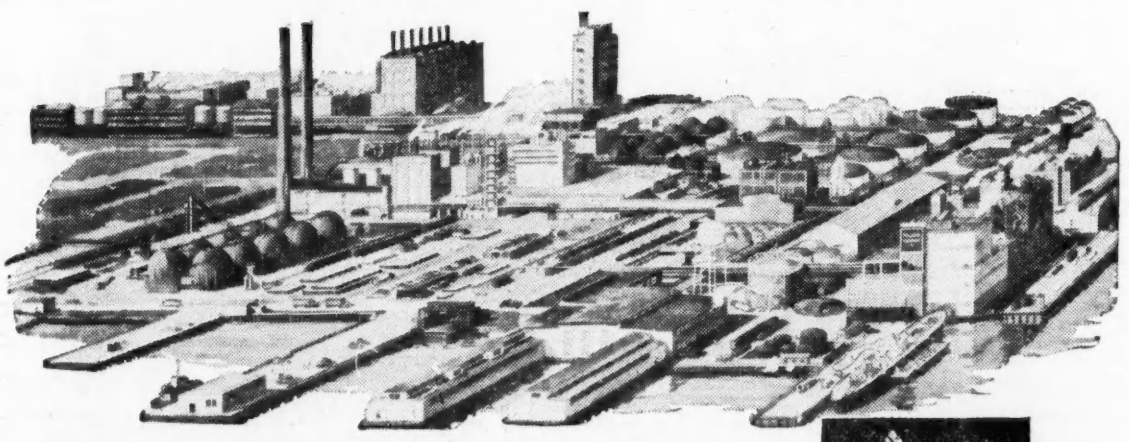
Proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .56 - —
l.c.l., same basis gal. .61 - .67
tanks, same basis gal. .43 - —

Tankcar sales require written authorization by Alcohol and Tobacco Tax Unit.

SD1, dms., c.l., dlvd. E. of Rockies gal. .55½- —
l.c.l., same basis gal. .60½- .66¼
tanks, same basis gal. .42½- —
SD2B, dms., c.l., dlvd. E. of Rockies gal. .54 - —
l.c.l., same basis gal. .59 - .65
tanks, same basis gal. .41 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .53 - —
l.c.l., same basis gal. .58 - .64
tanks, same basis gal. .40 - —
SD23A, dms., c.l., dlvd. E. of Rockies gal. .55½- —
l.c.l., same basis gal. .60½- .66¼
tanks, same basis gal. .42½- —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .56 - —
l.c.l., same basis gal. .61 - .67
tanks, same basis gal. .43 - —
SD29, dms., c.l., dlvd. E. of Rockies gal. .54½- —
l.c.l., same basis gal. .59½- .65¼
tanks, same basis gal. .41½- —
SD30, dms., c.l., dlvd. E. of Rockies gal. .53 - —
l.c.l., same basis gal. .58 - .64
tanks, same basis gal. .40 - —
SD35A, dms., c.l., dlvd. E. of Rockies gal. .56 - —
l.c.l., same basis gal. .61 - .67
tanks, same basis gal. .43 - —
SD40, dms., c.l., dlvd. E. of Rockies gal. .54 - —
l.c.l., same basis gal. .59 - .65
tanks, same basis gal. .41 - —

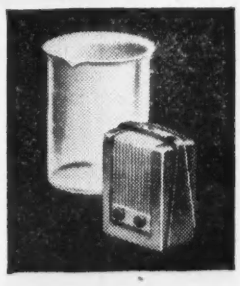
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon and Washington, where a 5c. differential on tankcars is maintained.

Diacetone, acetone-free, dms., c.l., dlvd lb. .14 - —
l.c.l., dlvd lb. .15 - —
tanks, dlvd lb. .12 - —
tech., dms., c.l., dlvd lb. .13½- —
l.c.l., dlvd lb. .14½- —
tanks, dlvd lb. .11½- —



Put This Plant Behind Your Product

Here at Publicker, we maintain that users of our products can no more afford to take chances with quality than we can. Consequently, every drop in every gallon or tank car is exactly according to specifications—always. And Publicker's ultra-modern equipment and vast facilities account for outstanding service to a long list of satisfied customers. May we have the opportunity of meeting *your* requirements?



ETHYL ALCOHOL • BUTYL ALCOHOL, NORMAL
BUTYL ACETATE, NORMAL • ETHYL ACETATE
ACETALDEHYDE • ACETIC ACID GLACIAL
ACETONE C.P. • AMYL ACETATE
FUSEL OIL, REFINED • ISOAMYL ALCOHOL
PACO SOLVENT T.R. 590

PUBLICKER INDUSTRIES Inc.

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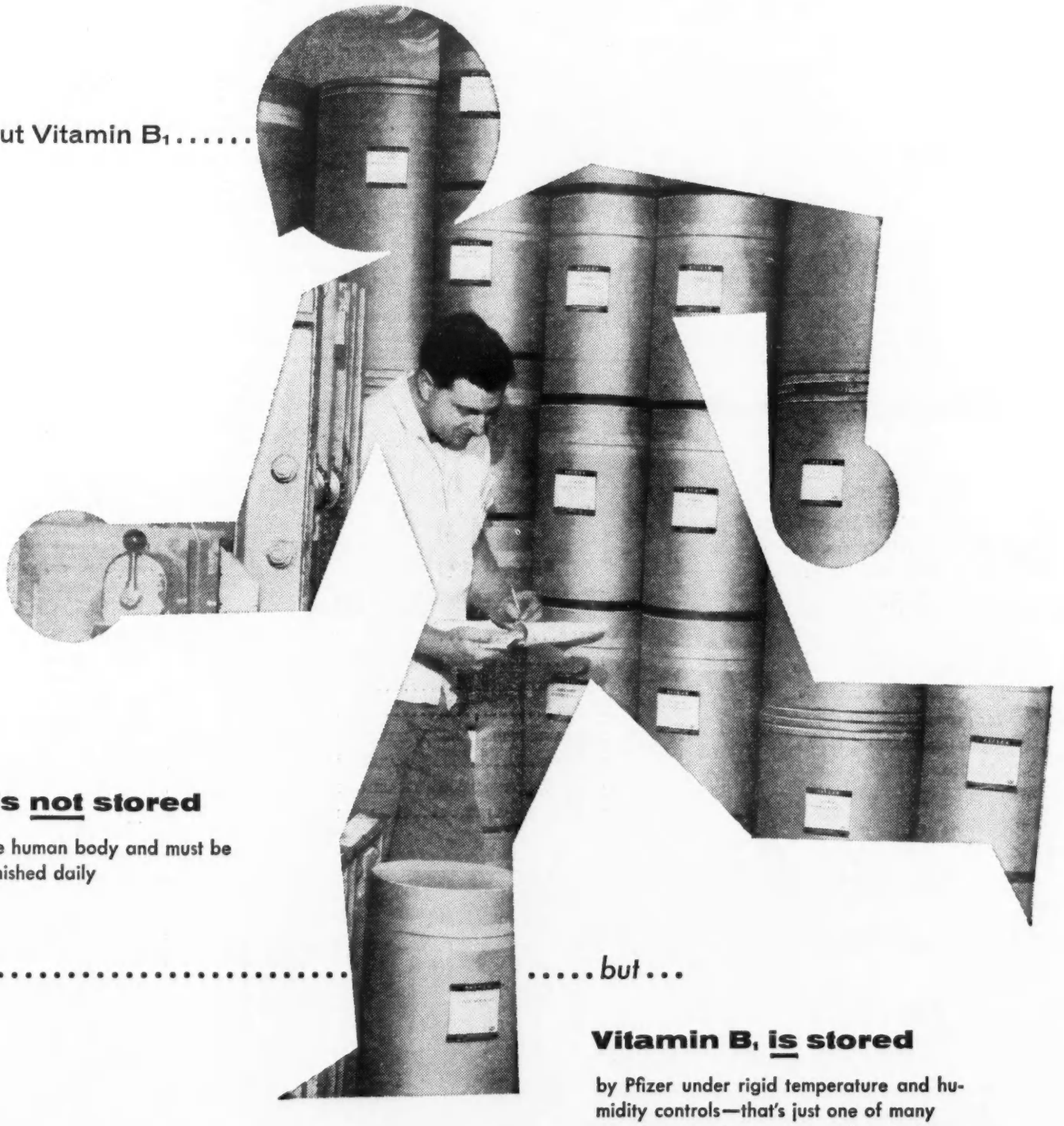
facts about Vitamin B_1.....



B_1 is not stored

by the human body and must be replenished daily

.....but...

Vitamin B_1 is stored

by Pfizer under rigid temperature and humidity controls—that's just one of many exacting steps in creating and protecting the *Pfizer* standard of vitamin quality to assure perfect results for you.

specify Pfizer for

THIAMINE HYDROCHLORIDE

AND THIAMINE MONONITRATE

Pioneer and Leading Manufacturer of Vitamins

Pfizer

CHAS. PFIZER & CO., INC.

Chemical Sales Division

630 Flushing Ave., Brooklyn 6, N. Y.

Branch Offices: Chicago, Ill.; San Francisco, Calif.; Vernon, Calif.; Atlanta, Ga.

Alcohol, Ethyl—Ammonium Pentaborate

Alcohol, ethyl, 190 pf., USP, tax paid, dms., c.l., dlvd. E. of Rockies gal. 20.48 - —
l.c.l. same basis gal. 20.53 - 20.59
tanks, same basis gal. 20.35 —
tax free, dms., c.l., dlvd E. of Rockies gal. .53 —
l.c.l. same basis gal. .58 - .64
tanks, same basis gal. .40 —
absolute, 200 pf., tax paid, dms., c.l., dlvd. E. of Rockies gal. 21.58 - —
l.c.l. same basis gal. 21.63 - 21.69
tanks, same basis gal. 21.45 —
2-Ethylbutyl, dms., c.l., works lb. .29½ - —
c.l. works lb .30 —
tanks, works lb .28 —
2-Ethylhexyl, dms., c.l. dlvd E. lb. .23¾ - —
l.c.l. same basis lb. .24¾ - —
tanks, same basis lb .21¾ - —
Furfuryl cns., works lb 29 —
dms., c.l., Cedar Rapids, Ia lb. 21 —
Newark, N. J lb. 21½ - —
l.c.l. Cedar Rapids, Ia lb. .22 —
Newark, N. J lb. .22½ - —
tanks, Memphis, Tenn lb. .184 —
Isoamyl, dms., c.l., works, frt. alld, E lb. .34 - —
l.c.l., same basis lb. .35 - —
tanks, same basis lb. .32 - —
Isobutyl, dms., c.l., dlvd lb. 14 - —
l.c.l dlvd lb 15 - —
tanks, dlvd lb .12 - —
Iso-octyl, dms., c.l., dlvd. E lb. 23 - —
l.c.l. dlvd E lb 24 - —
tanks, dlvd. E lb 21 - —
dlvd gal. .48 - —
Isopropyl, refd., 91%, dms., c.l., l.c.l. dlvd gal. .55 - —
tanks, dlvd. gal. .35 - —
Alcohol, isopropyl, refd., 95%, dms., c.l., dlvd. gal. .50 - —
l.c.l. dlvd gal. .57 - —
tanks, dlvd gal. .37 - —
99%, dms., c.l., dlvd gal. .52 - —
l.c.l., dlvd gal. .59 - —
tanks, dlvd gal. .39 - —
Lauryl, bots lb. 2.00 - 2.50
Methyl (see Methanol).
Methylamyl (see Carbinol, methyl-isobutyl).
Octyl, perfumer's grade, bots lb. 1.75 - 3.25
tech (see Octanol, normal).
2-Phenylethyl, extra, dms lb. 1.14 - 1.45
standard, dms lb 1.26 - 1.35
n-Propyl, dms., c.l., dlvd lb. .12 - —
l.c.l., dlvd lb. .13 - —
tanks, dlvd lb. .10 - —
Tetrahydrofurfuryl, cns., Cedar Rapids, Iowa lb. .54 - —
dms, c.l., Niagara Falls, N. Y. lb. .44½ - —
l.c.l., Newark, N. J., Cedar Rapids, Ia lb. .47 - —
tanks, Niagara Falls, N. Y lb. .43 - —
indust grade dms., c.l., Niagara Falls, N. Y lb. .305 - —
l.c.l., Newark, N. J., Cedar Rapids, Ia lb. .33 - —
tanks, Niagara Falls, N. Y. lb. .29 - —
Wood (see Methanol)
Aldol, 95%, dms., works lb. .23 - —
denaturing grade, dms gal. 2.15 - —
Aldrin, tech., fib. dms., c.l., t.l., dlvd lb. .80 - —
l.c.l., dlvd lb. .85 - —
Aletris root, bgs lb. 1.75 - 1.85
Algin (see Sodium alginate).
Allethrin, 90%, dms., frt. alld lb. 28.80 - 28.90
soln., 20%, dms., 200-2,000 lb. lots, frt. alld lb. 6.50 - 6.55
2½%, dms., frt. alld lb. .95 - 1.00
Allspice (see Pimento).
Allyl bromide, cbys., works lb. 1.35 - 1.40
Chloride, dms., c.l., dlvd lb. .17 - —
l.c.l., dlvd lb. .18 - —
tanks, dlvd lb. .15 - —
Starch, solid, dms., works lb. .52¾ - .54¾
solution, 40%, toluol-butanol, dms., works lb. .25½ - .26¼
Aloe, Cape, cs lb. .40 - —
powd., cs lb. .50 - —
Curacao, kgs lb. .50 - .55
Socotrine, kgs lb. No prices
Aloin, USP, bbls., dms., kgs lb. 3.75 - 3.82
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpineol (see a-Terpineol).
Alphatocopherol (see a-Tocopherol).
Alum, ammonium, gran., bgs., works 100 lbs 4.30 - —
lump, dms., works 100 lbs. 5.05 - —
powd. dms., works 100 lbs. 5.20 - —
USP, burnt, dms lb. .20 - .21
hydrous, dms lb. .07¾ - .08
Potassium, gran., bgs., works. 100 lbs. 4.55 - —
lump, dms., works 100 lbs. 5.30 - —
powd., dms., works 100 lbs. 5.45 - —
USP, burnt, dms lb. .20 - .21
hydrous, dms lb. .07¾ - .08
Potash-chrome, dms lb. .17 - —
Sodium, dms., c.l., works 100 lbs. 4.60 - —
l.c.l. works 100 lbs. 5.00 - —
Alumina, calcined, bgs., c.l., works. lb. .0385 - —
l.c.l., works lb. .0410 - .0510

Aluminum acetate, basic soln., 24%, bbls., l.c.l., works lb. .14 - —
Chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .15 - —
l.c.l., works, frt. equald. lb. .1550 - —
cryst., dms., c.l., works lb. .1450 - —
l.c.l., works lb. .1500 - —
soln., 32°, cbys., c.l., works lb. .0445 - —
l.c.l., works lb. 0520 - .1295
tanks, works 100 lbs. 3.45 - —
NF, gran., dms., works lb. .29 - .30
Fluoride, tech., anhyd., bgs., c.l., works lb. .15¾ - —
l.c.l., works lb. .16¾ - .18¾
Aluminum fluoride in fib. dms. 0.35c. per lb. higher.
Formate, basic soln., cbys lb. .09½ - —
l.c.l., works lb. .10 - —
Hydrate, heavy bgs., c.l., frt. equald lb, .0285 - —
2,000-20,000 lb. lots, same basis lb. .041 - —
bulk, same basis lb. .026 - —
light bgs dlvd lb. .17 - —
Hydroxide, gel, pharmaceutical, 14-15%, Al_2O_3, fib. dms., works lb. .22 - —
contract, works lb. .21 - —
9-9½% Al_2O_3, fib., dms., works lb. .19 - —
contract, works lb. .18 - —
dried, USP, XIV, fib. dms., works lb. .82½ - —
contract, works lb. .79½ - —
tech., powder (see Aluminum hydrate).
Metal, 99%+, ingots, 10,000-lb. lots, frt. alld lb. .232 - —
pigs, 10,000-lb. lots, frt. alld. lb. .215 - —
Oxide, amorphous (see Alumina, calcined).
Paste, lining, extra-fine, dms. lb. .63½ - —
standard, 200-lb. dms lb. .43 - —
Powder, linng, extra fine, dms. lb. 1.02½ - —
standard, 250-lb. dms lb. .72 - —

Aluminum powder and paste prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10-lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs., 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S. a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or over.

Resinate, precip., 2.1% Al, dms., frt. alld lb. .30½ - —
Stearate, dibasic, ctns., c.l. lb. .33 - —
l.c.l. lb. .34 - .37
monobasic, ctns., c.l. lb. .33 - —
l.c.l. lb. .34 - .37
tribasic, ctns., c.l. lb. .33 - —
l.c.l. lb. .34 - .37
Sulfate, coml., bulk, c.l., works. 100 lbs. 1.85 - —
grd., bgs., c.l., works ton 37.00 - —
lump, bgs., c.l., works ton 40.00 - —
iron-free, bgs., c.l., works, frt. equald. 100 lbs. 3.55 - —
l.c.l., works, frt. equald. 100 lbs. 3.95 - —
USP, gran., dms., works lb. .16 - .18
powd., dms., works lb. .36 - .37
Trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots oz. 8.90 - 10.00
Aminoazotoluene, base, bbls., 100% basis lb. 1.03 - 1.18
o-Aminobiphenyl, dms., c.l., works lb. .32½ - —
l.c.l., works lb. .33 - —
tanks, works lb. .31 - —
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .46½ - —
l.c.l., dlvd. lb. .45 - —
tanks, dlvd lb. .45 - —
2-Amino-2-methyl-1-propanol, cns., dms., works lb. .60 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
smaller lots lb. 2.50 - —
p-Aminophenol, dms., frt. alld lb. .97 - .98
Aminophylline, USP, 100-lb. dms lb. 3.55 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald ton 85.00 - 88.00
pure cyls., extra, zone 1 lb. .18½ - —
2 lb. .19 - —
3 lb. .19½ - .20
4 lb. .20 - —
5 lb. .21 - —
refrigeration, tanks, works, frt. equald. ton 87.50 - 90.50
Aqueous (29.4% NH_3), dms., c.l., dlvd. Metropolitan area 100 lbs. 3.60 - —
l.c.l., works 100 lbs. 4.00 - —
tanks, works, anhyd. basis. ton 96.00 - —
Ammoniac, sal, gray, bgs., c.l., works, frt. equald. 100 lbs. 8.25 - —
l.c.l., same basis 100 lbs. 8.65 - 11.15
white gran. (see Ammonium chloride, tech.)
Ammoniacal liquor, tanks, works, anhyd. basis ton 96.00 - —
Ammonium acetate, purif., dms. lb. .88 - —
Benzoate, USP, dms., kgs., 4,000-lb. lots, frt. alld lb. .80 - —
smaller lots, frt. alld lb. .81 - 1.08
Biborate, gran., dms., c.l., works. ton 317.00 - —
ton lots, ex whse. ton 390.50 - —
smaller lots, ex whse. ton 395.50 - —
Bicarbonate, dom., dms., c.l., works. 100 lbs. 6.50 - —
l.c.l., works 100 lbs. 8.00 - —
imp., dms., l.c.l. lb. .07¼ - .08¼
Bichromate, dms., works lb. .42 - .43
Bifluoride, dms., dlvd lb. .2145 - .2248
Bromide, NF, gran., bbls lb. .39 - —
Powdered ammonium bromide 10c. per lb. higher.
Carbonate, USP, lump, dms lb. .16 - —
Chloride, tech., white, fines, gran., bgs., c.l., works. 100 lbs. 5.25 - —
l.c.l., works 100 lbs. 7.00 - —
USP, gran., bbls., dms lb. .17¼ - —
Citrate, dibasic, bbls lb. .75 - —
dms. lb. .80 - .88
Dichromate (see Ammonium bichromate).
Fluoride (see Ammonium bifluoride).
Hydroxide (see Ammonia, aqueous).
Hypophosphite, NF, dms lb. 3.07 - —
Iodide, NF, dms., bots lb. 4.26 - 4.38
Linoleate, 80%, dms., works lb. .50 - .55
Nitrate, dom., fertilizer grade, 33.5% N., bgs., western, works, frt. equald. ton 68.00 - 70.00
with dolomite, 20.5%N, bgs., Hopewell, Va. ton 51.00 - —
imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equal to $6 per ton 74.50 - —
western, bgs., c.l., f.o.b. cars, Los Angeles ton 84.89 - —
Oxalate, fine gran., dms lb. .26¼ - .31
Pentaborate, gran., dms., c.l., works. ton 227.00 - —
ton lots, ex whse ton 300.50 - —
smaller lots, ex whse ton 305.50 - —
Ammonium pentaborate powder, $10 per ton higher.

20° and 22° Baumé Water White and Commercial Grades Available in Tank Car Quantities from Niagara Falls, New York

20° Baumé Commercial Grade Muriatic Acid is also available for prompt tank car shipments from Carlsbad, New Mexico.

MURIATIC ACID

specifications

20° and 22° Baumé Water White Grade

COLOR.....WATER WHITE
IRON.....0.0001% MAXIMUM
FREE CHLORINE.....NONE
ARSENIC.....NONE
INORGANIC SALTS. 0.002% MAXIMUM
SULFATES.....0.0003% MAXIMUM
ORGANIC MATTER 0.0002% MAXIMUM
SUSPENDED MATTER.....NONE

International's Muriatic Acid is produced from inorganic materials and, at the Niagara Falls Plant, is made directly by burning hydrogen with chlorine. You can be sure of the purity, quality and consistency of grade to specifications. Muriatic Acid, in the grade and quantity you require, is available for prompt shipments. We shall be glad to send samples on request.

International MINERALS CHEMICALS

MINING·REFINING·MANUFACTURING CAUSTIC POTASH—*all standard grades;* CARBONATE OF POTASH—*all standard grades;* POTASSIUM CHLORIDE—*refined and technical grades;* SULFATE OF POTASH; LIQUID CHLORINE; MURIATIC ACID.

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

Address all inquiries to Industrial Sales Dept., Potash Division
General Offices: 20 North Wacker Drive, Chicago 6
61 Broadway, New York 6 • Midland, Texas

Ammonium perchlorate, kgs., works	lb.	.50	.75
Persulfate, kgs.	lb.	.46½-	.47½
Phosphate, coml., bgs., c.l., works, frt. equald	lb.	.0865-	—
l.c.l. same basis	lb	.09	—
dibasic, NF, V bbls., dms.	lb.	.46	—
tech., bgs. c.l. works, frt. equald	lb.	.0865-	—
l.c.l., same basis	lb.	.0915-	—
Salicylate, NF, dms., kgs	lb.	1.62	1.64
Silicofluoride, dms., works	lb.	.11	.12
Sulfamate, bgs., c.l., l.l., works	lb.	.18	—
l.c.l., works	lb.	.22	—
Sulfate, coke-oven, bulk, producing ovens	ton	42.00	47.50
syn., bgs. c.l., western, works	ton	44.00	—
bulk, works	ton	42.00	—
purif., dms., works	lb.	.09	.09½
Sulfide, liq., 40-44%, dms., c.l., frt. equald., 100% basis,	ton	240.00	—
l.c.l., works, 100% basis	ton	300.00	—
tanks frt alld., 100% basis	ton	180.00	—
Sulfocyanide, tech. (see Ammonium thiocyanate).			
Thiocyanate, tech., dms., c.l., works	lb.	.20	—
l.c.l., works	lb.	.22	.26
Thioglycollate, coml., cbys., 100% basis	lb.	1.35	1.55
highly purif., cbys., 100% basis,	lb.	1.70	1.96
Thiosulfate, cryst., photo grade, fib dms., frt alld	lb.	.65	—
60% soln., dms., c.l., works	lb.	.06½-	—
d-Amphetamine hydrochloride dibasic, bots	lb.	28.00	—
dl, dms	lb	6.00	—
d-monobasic, bots	lb.	28.00	—
d-Phosphate, dibasic, bots	lb.	28.00	—
dl, dms	lb	6.00	—
d-Sulfate, dms	lb	28.00	—
dl, dms	lb	6.00	—
Amyl acetate, ex fusel oil, tech., dms., c.l., frt. alld. E. of Rockies	lb.	.22	—
l.c.l., same basis	lb.	.23	—
tanks, same basis	lb.	.20	—
ex pentane, reg. dms., c.l., dlvd.	lb.	.17	—
l.c.l., same basis	lb.	.18	—
tanks, same basis	lb.	.15	—
tech., dms., c.l., dlvd.	lb.	.15	—
l.c.l., same basis	lb.	.16	—
tanks, same basis	lb.	.13	—
Alcohol (see Alconol amyl).			
n-butyrate, dms.	lb.	.90	1.25
Cinnamic, aldehyde, dms.	lb.	1.75	2.20
Nitrite, USP, bots	lb.	1.75	1.83
Salicylate, cns., dms	lb.	.74	1.05
o-tert-Amyl phenol, dms., c.l., works,	lb.	.43¾-	—
l.c.l., works	lb.	.46¾-	—
tanks, works	lb.	.41¾-	—
p-tert-Amyl phenol, dms. c.l., works.	lb.	.24¾-	—
l.c.l., works	lb.	.25¾-	—
tanks, works	lb.	.23¾-	—
Anethole, NF, cns., dms	lb.	1.85	—
tech., dms	lb.	1.10	—
Angelica root, dom. bls	lb.	.60	.70
Anise seed, Mexican, bgs.	lb.	.33	—
Aniline oil, dms. c.l. works, frt. and.	lb.	.21	—
l.c.l., works, frt. alld	lb.	.22	—
tanks, works, frt. alld	lb.	.20	—
Salt, dms., c.l., truckloads, 20,000 lbs., min., frt. alld	lb.	.31	—
l.c.l., same basis	lb.	.33	—
Spanish, bgs.	lb.	.36	.39
Spanish, bgs.	lb.	.36	.38
Syrian, bgs.	lb.	No prices.	
Anisic aldehyde, bots., dms	lb.	1.80	2.70
o-Anisidine, dms., works	lb.	.88	—
p-Anisidine, dms., works	lb.	.97	—
Annatto seed, whole, bgs.	lb.	.24	—
powd., dms.	lb.	.28	—
Anthracene, 90-95%, bbls., ton-lots, works	lb.	.70	—
smaller lots, works	lb.	.95	—
Anthraquinone, 99.5%, bbls, c.l., frt. alld	lb.	.83	—
l.c.l., same basis	lb.	.86	—
electrical grade, bbls., l.c.l., same basis	lb.	.91	—
Antimony butter (see Antimony trichloride).			
Metal, bulk, c.l., mines	lb.	.28½-	—
cs., c.l., mines	lb.	.29	—
Oxide, bgs., c.l., frt. alld	lb.	.29	—
l.c.l., frt. alld	lb.	.30½-	—
Sulfide, approx. 60%, bgs., dlvd	lb.	.27	.30
Trichloride anhyd., pails, c.l., works	lb.	.38½-	—
l.c.l., works	lb.	.40½-	—
USP, powd., dms	lb.	.64	.65
Antimony-potassium tartrate, tech., powd., dms	lb.	.60½-	.65¼
Antipyrine, NF, 200-lb. bbl	lb.	3.50	—
Apomorphine hydrochloride, USP, bots	oz.	23.40	23.90
Areca nuts, powd., bbls	lb.	.15	.16
Arecoline hydrobromide, NF, bots., tins	oz.	4.50	6.00
l-Arginine monohydrochloride, dms., 1-kilo lots	kilo.	74.80	83.00
Arnica flowers (true montana), bls.	lb.	3.00	Nom.
Arsenic metal, lump, bbls., ex whse.	lb.	.54	—
Trioxide, USP, dms	lb.	.48	—
White, powd., bbls., c.l., dlvd	lb.	.05½-	—
l.c.l., dlvd	lb.	.06½-	.07¼
Asafetida, cs.	lb.	.36	.39
powd., bbls., dms	lb.	.50	.53
Asbestine (see Talc, fibrous, N. Y.)			
Asbestos, Canadian, crude, No. 1, c.l. (20 tons), mines	ton.	1,300.00	—
No. 2, c.l. (20 tons), mines.	ton.	675.00	—
Run-of-mine, c.l., (20 tons), mines	ton.	556.00	—
3K, c.l. (20 tons), mines	ton.	436.00	—
3R, c.l. (20 tons), mines	ton.	371.00	—
3T, c.l. (20 tons), mines	ton.	348.00	—
4Z, c.l. (20 tons), mines	ton.	321.00	—
4K, c.l. (20 tons), mines	ton.	173.00	—
4M, c.l. (20 tons), mines	ton.	173.00	—
4T, c.l. (20 tons), mines	ton.	156.00	—
4Z, c.l. (20 tons), mines	ton.	156.00	—
5D, c.l. (20 tons), mines	ton.	122.50	—
5K, c.l. (20 tons), mines	ton.	122.50	—
5M, c.l. (20 tons), mines	ton.	116.50	—
5R, c.l. (20 tons), mines	ton.	110.00	—
6D, c.l. (30 tons), mines	ton.	78.00	—
7D, c.l. (30 tons), mines	ton.	68.50	—
7F, c.l., (30 tons), mines	ton.	65.00	—
7H, c.l. (30 tons), mines	ton.	55.00	—
7K, c.l. (30 tons), mines	ton.	46.00	—
7M, c.l., (30 tons), mines	ton.	40.00	—
7R, c.l. (30 tons), mines	ton.	39.00	—
7RF, c.l. (30 tons), mines	ton.	40.00	—
7T, c.l. (30 tons), mines	ton.	37.00	—
7TF, c.l. (30 tons), mines	ton.	40.00	—
8S, c.l., (30 tons), mines	ton.	27.00	—
Asbestos c.l. prices are in U. S. funds, l.c.l. lots, $4 per ton higher.			
Asphalt, gilsonite, black, jet, bgs., c.l., mines	ton.	37.00	—
select, 350° F., fusing pt., bgs., c.l., mines	ton.	38.00	—
270°-295°F., fusing pt., bgs., c.l., mines	ton.	37.00	—
seconds, 300°-390°F. fusing pt., bgs., c.l., mines	ton.	32.00	—
Manjak, No. 10, crude, dms., works	lb.	.06¼-	—
Asphalt, petroleum, cut-back, tanks, tankwagon, refy	gal.	.09	—
emulsion, tanks, tankwagon, refy	gal.	.09½-	.10
steam-refd., 50-80 penetration, tanks, tankwagon, refy	ton.	21.00	—
85-300 penetration, tanks, tankwagon, refy	ton.	20.00	—
Aspirin (see Acid, acetylsalicylic).			
Atropine, USP, bots	oz.	6.25	6.75
Sulfate, USP, bots	oz.	4.00	4.20

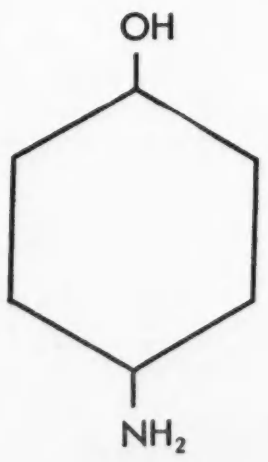
B

Bacitracin, bulk, 1,000,000,000 or more units	50,000 units.	.70	—
less than 1,000,000,000 units	50,000 units.	.75	—
Balm of Gilead buds, dried, bgs	lb.	1.35	1.45
Barberry, root bark, bgs	lb.	.28	.30
Barbital, USP, 100-lb. dms	lb	4.50	—
Sodium, USP, dms	lb	4.75	4.77
Barium carbonate, precip., bgs., c.l., works	ton.	92.50	—
smaller lots, works	ton.	102.50	—
Chlorate, kgs., works	lb.	.32	.36
Chloride, anhyd., bgs., c.l., works.	ton.	158.00	—
l.c.l., works	ton.	168.00	—
NF, cryst., dms.	lb.	.20	—
tech., cryst., dms., c.l., works.	100 lbs.	6.00	—
l.c.l., works	100 lbs.	6.50	—
Chromate, bgs., frt. equald	lb.	.35	—
Dioxide (see Barium peroxide).			
Hydrate cryst., bgs	ton.	180.00	190.00
Monoxide (see Oxide).			
Nitrate, bbls., c.l., works	lb.	.12½-	—
l.c.l., works	lb.	.14	—
Barium oxide, grd., dms., c.l., frt. equald	ton.	255.00	—
l.c.l., works	ton.	265.00	—
Peroxide, dms., works	lb.	.16	—
Stearate, cbys., c.l., frt. and	lb.	.37	—
l.c.l. same basis	lb.	.38	.43
Sulfate, tech. (see Barytes and Blanc fixe).			
X-ray, dms.	lb.	.15	.15½
Sulfide, dms., c.l., works	ton.	85.00	—
l.c.l. works	ton	95.00	—
Barytes, Southern, off-color, bgs., mines	ton.	25.00	—
95-75%, bgs., mines	ton.	25.00	—
water-grd., paper bgs., c.l., E. St. Louis	ton.	41.60	—
ex-whse., N. Y.	ton.	60.10	—
Bauxite, bulk, mines	ton.	9.50	10.00
Bay leaves (see Laurel leaves).			
Belladonna leaf, bls	lb.	.35	.37
root, bls	lb.	.45	.50
Bentonite, dom., 200 mesh, bgs., c.l., mines	ton.	14.00	—
imp. Italian, white, high gel., bgs., 5-ton lots, ex whse	ton.	80.60	—
1 ton-lots, ex whse	ton.	83.10	—
low gel., bgs., 5-ton lots, ex whse	ton.	78.95	—
1-ton lots, ex whse	ton.	81.45	—
Benzal chloride, cbys., works	lb.	.22	.23½
Benzaldehyde, NF, dms	lb.	.74	1.05
tech., cbys., dms	lb.	.44	—
Benzene (see Benzol).			
Hexachloride, 25% and 99% gamma isomer (see Lindane),			
tech., bgs., dms., c.l., works, gamma unit	lb.	.0075-	.009
l.c.l., works, gamma unit	lb.	.015	—
Benzene hexachloride, wet dust distributors, dms., c.l., dlvd., gamma unit	lb.	.02	—
l.c.l., dlvd., gamma unit	lb.	.021	—
Benzidine hydrochloride, bbls., frt. alld., 100% basis	lb.	1.00	—
Benzocaine, dms	lb	3.48	3.50
Benzol, coaltar, pure or nitration, tanks, works:—			
Bethlehem, Pa	gal.	.36	—
Birmingham district	gal.	.36	—
Chicago district	gal.	.36	—
Cleveland district	gal.	.36	—
Geneva, Utah	gal.	.36	—
Johnstown, Pa.	gal.	.36	—
Lackawanna, N. Y.	gal.	.36	—
Lone Star, Texas	gal.	.36	—
Lorain, Ohio	gal.	.36	—
Middletown, Ohio	gal.	.36	—
Minnequa, Colo	gal.	.36	—
Philadelphia district	gal.	.36	—
Pittsburgh district	gal.	.36	—
Sparrows Point, Md.	gal.	.36	—
Syracuse, N. Y.	gal.	.36	—
Terre Haute, Ind.	gal.	.36	—
Youngstown, Ohio	gal.	.36	—
Benzophenone dms	lb.	1.40	1.70
Benzotrichloride, cbys., frt. equald.	lb.	.18	.20
Benzoyl chloride, cbys., dms., c.l., works, frt. equald	lb.	.22	—
l.c.l., same basis	lb.	.23	—
tank trucks, dlvd. Metropolitan area	lb.	.21	—
Peroxide, purif., fib. dms., 50 to 1,000-lb. lots, works	lb.	.98	1.08
Benzyl acetate, f.f.c., cns., dms	lb.	.62	1.04
Alcohol (see Alcohol, benzyl).			
Benzoate, USP, f.f.c., cns., dms.	lb.	.62	1.10

Promising

Already there are many uses for Du Pont p-Aminophenol and its interesting properties indicate more to come. Currently this chemical is used to prepare pharmaceuticals, dyes, photographic chemicals, oil additives and anti-oxidants. Perhaps it can help you in your work.

Du Pont p-Aminophenol* is a light fawn to light brown powder that darkens considerably upon continued exposure to air. It is soluble in aqueous caustic alkali and dilute hydrochloric acid. It may contain up to 0.5% hydrochloric acid insolubles as impurities.



Specifications: Purity: 97.0% minimum by nitrite absorption.

Molecular weight: 109.1

FOR COMPLETE INFORMATION about this valuable intermediate just write on company letterhead to: E. I. du Pont de Nemours & Co. (Inc.), Organic Chemicals Dept., Chemicals Div., Wilmington 98, Del.

*This product sold in technical grade

DU PONT
REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

ORGANIC CHEMICALS DEPARTMENT

Benzyl Chloride—Butyric Ether

Benzyl chloride, tech., 13-gal. cbys., dms., c.l., works, frt. equald lb. .23 - —
l.c.l., same basis lb. .24 - —
tank trucks, same basis lb. .21 - —

A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices were ½c. lower.

Cinnamate, cns. lb. 3.60 - 3.90
Formate, cns. lb. 1.30 - 2.10
Isoeugenol, cns. lb. 8.60 - 9.10
Propionate, bots. lb. 1.35 - 1.65
Salicylate, bots. lb. 1.50 - 1.85
Benzylidine acetone, bots lb. 1.68 - 1.80
Chloride (see Benzal chloride).
Berberine bisulfate, cns lb.35.00 -36.25
Hydrochloride, bots. lb.35.00 -36.25
Betagammapicoline (see b.g-Picoline).
Beta-methylnaphthalene (see b-Methylnaphthalene)
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, technical)
Biotin cryst., bots gram.10.00 - —
Biphenyl (see Diphenyl).
Bismuth chloride, jars lb. 5.11 - —
Hydroxide, dms. lb 4.65 - —
Metal, bxs. ton lots lb 2.25 - —
Nitrate, cryst., dms lb 2.10 - 2.17
Oxide, anhyd., dms lb 4.47 - 5.05
Oxychloride, dms lb 4.37 - 4.42
Phenolsulfonate, fib dms lb 5.22 - —
Subcarbonate, USP, dms lb. 3.20 - —
Subiodide, fib. dms. lb. 5.37 - —
Subnitrate, NF, dms lb. 2.65 - —
Subsalicylate, USP, dms lb. 3.50 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Black, acetylene, bgs., c.l., duty and freight extra lb. .17 - —
cs., l.c.l., ex whse. lb. .22½ - .26
Ash (see Barium sulfide).
Bone dms. l.c.l., frt. alld lb. .17 - .23¼

Pacific coast bone black prices, 2c. per lb. higher

Carbon, channel, pigment, high color, beads ctns., c.l., works. lb. .72 - —
l.c.l., dlvd. or whse. lb. .78 - —
medium color, uncompressed, bgs., c.l., works. lb. .12 - —
l.c.l., dlvd. or whse. lb. .19 - —
rubber, beads, bulk, c.l., works lb. .07 - —
bgs., c.l., works lb. .074 - —
l.c.l., works lb. .1225- —
furnace, fast extruding, bgs., c.l., works lb. .06 - —
ctns., l.c.l., whse lb. .10 - —
high abrasion, bulk, c.l., works. lb. .0750- —
bgs., c.l., works lb. .0790- —
l.c.l., dlvd. or whse lb. .122 - .125
high modulus, bgs., c.l., works. lb. .0550- —
ctns., l.c.l., whse lb. .0950- —
semi-reinforcing bgs., c.l., works lb. .045 - —
bgs., cns., l.c.l. whse lb. .085 - —
Black, charcoal (see C).
Dyes (see Dyes).
Graphite (see G).
Iron oxide, pure, bgs., c.l., works. lb. .12¾- —
l.c.l., works lb. .13 - —
Lamp, bgs., c.l., works lb. .16 - .45
Mineral, bgs., works lb. .0160- .0675
Blackberry root bark, bls lb. .45 - —
Black haw root bark, bls lb. .63 - .65
tree bark, bls lb. .40 - .45
Blanc fixe, dry, byproduct, bgs., c.l., works ton.190.00 - —
l.c.l., works ton.200.00 - —
direct process, bgs., c.l., works. ton.100.00 - —
l.c.l., works ton.110.00 - —
N. Y. whse ton.140.88 -165.00
Bleaching powder, dms., c.l., works. 100 lbs. 5.02 - —
l.c.l., works 100 lbs. 6.52 - —
Blood, dried, 16-16½% ammonia, bgs unit-ton. 5.00 - —
high-grade, unground, 16-17% ammonia, bgs., Chicago. unit-ton. 5.00 - —
soluble, bgs., c.l. lb. .14 - 17
l.c.l. lb. .18 - .25
Bloodroot bls. lb. .48 - .50
Blue, alkali, dry, 250-lb. bbls., dlvd, N. or Tenn. and N. C., E. of Miss. R. including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis lb. 2.10 - —
toner, 125-lb. bbls., litho flushed, same basis lb. 1.20 - —
Chinese, bbls., same basis lb. .49 - —
Cobalt, genuine, bbls., same basis lb. 4.90 - —
Imitation (see Blue ultramarine).
Dyes (see Dyes).
Iron (see Blue, Chinese, Milori, Potash, Prussian and Soda).
Blue methyl violet toner, molybdated, PMA, bbls., same basis lb. 2.60 - —
tungstated, PTMA, bbls., same basis lb. 3.85 - —
Milori, bbls., same basis lb. .49 - —
Peacock, fugitive, 100% color strength, bbls., same basis. lb. .75 - —
Phthalocyanine, full strength, bbls., same basis lb. 3.45 - —
resinated, bbls., same basis lb. 3.00 - —
water dispersable, bbls., same basis lb. 1.54 - —
Potash, CP, bbls., same basis lb. .56 - —
Prussian, insoluble, bbls., same basis lb. .49 - —
soluble, bbls., same basis lb. .49 - —
Soda, CP, bronze, bbls., same basis lb. .56 - —
Ultramarine, cobalt type, dry or pulp, bbls., same basis lb. .30½- .35
jobbing types, bbls., same basis. lb. .16½- .18½
regular types, dry, bbls., same basis lb. .22½- .35
Victoria toner, molybdated, PMA, bbls lb. 4.10 - —
tungstated, PTMA, bbls lb. 5.00 - —

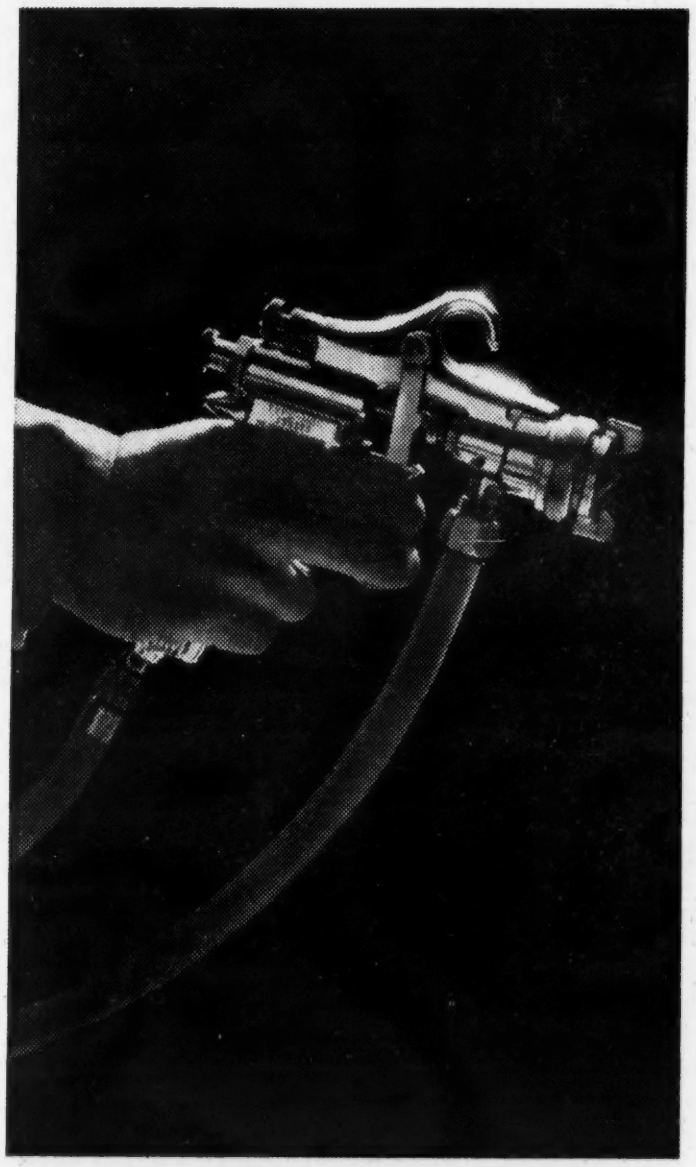
Blue dry colors, dlvd. prices ½c. higher Ala., Fla., Ga., La. (Shreveport 1¼c.), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph 1.6c. higher Pac. Coast, Denver, Pueblo, Salt Lake City, Wichita, frt. equalized with Chicago.

Vitrol (see Copper sulfate).
Bluestone (see Copper sulfate).
Bonemeal, steamed, works, E. ton.72.50 - —
Los Angeles ton.82.00 - —
Bone phosphate defluorinated (see D)
of lime (see Calcium phosphate, tribasic).
precipatated (see Calcium phosphate tribasic, NF, precip.).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton.78.00 - —
ton lots ex whse N. Y. or Chicago ton.125.75 - —
bulk c.l., works ton.70.00 - —
cryst. 99½%, bgs., c.l., works. ton.67.25 - —
ton lots, ex-whse., N. Y. or Chi ton.115.00 - —
smaller lots, same basis. ton.120.00 - —
gran., decahydrate, 99½%, bgs., c.l., works ton.41.25 - —
ton lots, ex whse., N. Y., Chi ton.89.00 - —
smaller lots, same basis. ton.94.00 - —
bulk, c.l., works ton.35.75 - —
pentahydrate, 99½%, bgs., c.l., works ton.55.50 - —
ton lots, ex whse., N.Y., Chi ton.108.25 - —
smaller lots, same basis. ton.103.25 - —
powd., 99½% bgs. ton.46.25 - —
ton lots, ex-whse., N. Y. or Chi. ton.94.00 - —
smaller lots same basis. ton.99.00 - —

Borax packed in kgs., $45.50 per ton higher than in paper bgs.; in barrels, $24.50 higher. USP borax $15 per ton higher.

Bordeaux mixture, bgs., c.l., works, frt. alld. or nearest whse. pt. lb. .18 - .24
l.c.l., same basis lb. .19 - .26
Borneol, cns lb. 2.50 - 4.50
Borontrifluoride gas, cyls., truckload, works lb. .62 - —
lers truckload, works lb. .70 - —
Brazilwood extract (see Hypernic extract).
Brimstone (see Sulfur).
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
l.c.l., same basas lb. .33 - .38
ret. dms., c.l., t.l., same basis. lb. .30 - —
l.c.l., same basis lb. .30 - .32
tanks, same basis lb. .21½- —
Bromoform, pharmaceutical grade, bots lb. 1.62 - 2.60
cbys. lb. 1.52 - —
Bromstyrol, bots lb. 5.40 - 5.70
Bronze powder aluminum (See A).
Brown, iron oxide, pure, bgs., c.l., works lb. .13¾- —
l.c.l., works lb. .14 - —
Oxide, metallic, bgs, works lb. .04 - —
Sienna, burnt, paper bgs., c.l., works lb. .04¼- .15¼
l.c.l., works lb. .04½- .15½
raw, paper, ogs., c.l., works lb. .04½- .13
l.c.l., works lb. .04¾- .13¼
Umber, burnt, American, bgs., c.l., works lb. .06 - —
l.c.l., works lb. .06¼- .07
Turkey type bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y. lb. .06¾- —
l.c.l., works lb. .07 - —
raw, American bgs., works lb. .06¾- .06¼
Turkey-type, bgs., works lb. .06¾- .07
Vandyke bbls., works lb. .09½- .12
Brucine, cns., 100-oz. lots oz. .20 - .25
Sulfate, NF, cns., 100-oz. lots oz. .15 - .20
Buchu leaves, bls lb. .65 - —
Butadiene refd., cyls., refy lb. .22 - —
tanks, refy lb. .15 - —
Butane, indust., tanks, group 3 gal. .02½- —
N. Y. harbor gal. .08 - —
n-Butyl acetate, ferment., dms., c.l., frt. alld lb. .15 - —
l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
syn., dms., c.l., dlvd. E lb. .15 - —
l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
sec-Butyl acetate, syn., dms., c.l., dlvd. E lb. .12½- —
l.c.l., same basis lb. .13¼- —
tanks, same basis lb. .10¾- —
n-Butyl alcohol (see Alcohol, n-Butyl).
Aldehyde (see Butyraldehyde).
Chloride, dms., c.l., works lb. .37½- —
l.c.l. works lb. .38 - —
Ether, dms., c.l., works lb. .31½- —
l.c.l., works lb. .32 - —
tanks, works lb. .30 - —
Lactate, dms., c.l., frt. alld. E. of Rockies lb. .35 - —
l.c.l., same basis lb. .36 - —
tanks, same basis lb. .33 - —
Laurate, dms., works lb. .39 - —
Methacrylate, dms., l.c.l., works. lb. .70 - —
Oleate, refd., dms., l.c.l., works. lb. .32 - —
Phenylacetate dms lb. 4.50 - 4.60
Phthalate (see Dibutyl phthalate).
Stearate, dms, l.c.l., frt. equald lb. .34 - .27
Butylamine (see mono-de-, and tri-).
6-tert-Butyl-m-cresol, dms., c.l., works lb. .49 - —
l.c.l., works lb. .50 - —
tanks, works lb. .48 - —
p-tert-Butylphenol, bgs., c.l., works. lb. .25½- —
l.c.l., works lb. .26½- —
Butyraldehyde, dms., c.l., dlvd lb. .21½- —
l.c.l. dlvd lb. .22½- —
tanks, dlvd lb. .19½- —
Butyric ether (see Ethyl butyrate).

for the paint, varnish and lacquer industry



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acetone
n-butyl acetate
ethyl acetate
2-ethylhexyl alcohol
isobutyl acetate
isobutyl alcohol
isopropyl acetate
Tecsol® (95% proprietary solvent)

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dibutyl phthalate
diethyl phthalate
dioctyl phthalate (DOP)
di-isooctyl phthalate (DIOP)
di-(methoxyethyl) phthalate
dimethyl phthalate
di-isobutyl phthalate

FILM FORMERS

cellulose acetate
cellulose acetate butyrate

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KINGSPORT, TENNESSEE
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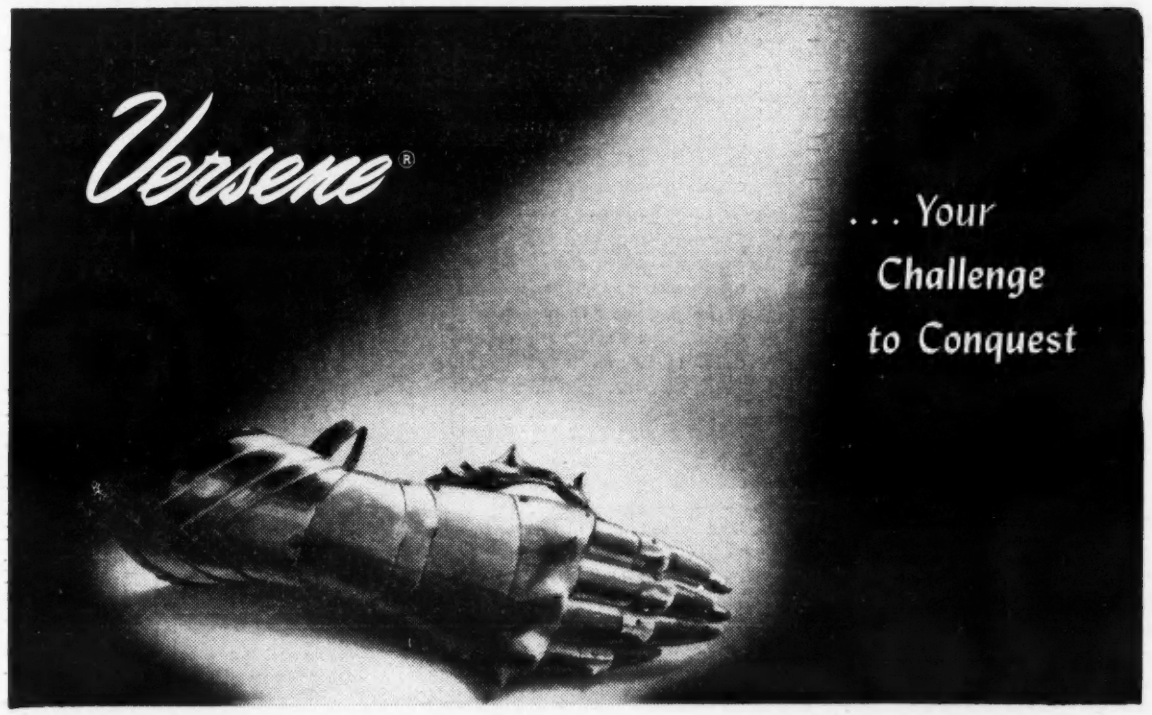
C

Cacao butter (see Cocoa butter).
Cadmium iodide, 25-lb. fib. dms lb. 6.75 - 7.00
Metal ingots or sticks, cs., dlvd. lb. 1.70 - —
Caffeine, USP, nat., cryst., anhyd., dms., 100-lb. lots or more lb. 3.35 - —
hydrous, dms., 100-lib. lots or more lb. 3.13 - —
syn., cryst., anhyd., dms., 100-lb. lots or more lb. 3.35 - —
hydrous, 100-lb. lots or more. lb. 3.15 - —
citrated, USP, dms., 100-lb. lots or more lb. 2.90 - —
Calamine, USP, dms lb. .34 - —
Calciferol, cryst., vials, 1-kilo lots, works gram. .60 - —
25 to 100 gram lots, works. gram. .65 - —
in edible oil (see Viosterol).
Calcium p-aminosalicylate, fib., dms., 1,000 lb. lots, frt. adjusted lb. 7.00 - —
smaller lots, same basis lb. 7.05 - 7.50
Arsenate, dealers, dms., c.l., whse. works, frt. alld. on 96 lbs. or over lb. .09 - .10
l.c.l., same basis lb. .10 - —
Bromide, NF, jars lb. .90 - .94
Carbide, standard generator size, dms., c.l., dlvd ton 134.40 - —
Carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works ton. 7.50 -10.00
chalk, whiting, 325 mesh, bgs., works ton 32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton.30.00 - —
10 to 20 microns, bgs., c.l., works ton.17.00 -18.00
precip., dense bgs., c.l., works. ton.30.00 -33.00
l.c.l., works ton.40.00 -48.00
medium, bgs., c.l., works ton.35.00 - —
l.c.l., works ton.45.00 -50.00
surface treated, bgs., c.l., works ton.35.00 -50.00
l.c.l., works ton.45.00 -65.00
ultrafine, bgs., c.l., works. ton.110.00 -160.00
l.c.l., works ton.120.00 -175.00
Chloride, cryst., purif., dms. lb. .27 - —
flake, 77-80%, paper bgs., c.l., works, frt. equald ton.27.00 - —
liquor, 40%, tanks, frt. equald. ton.11.35 - —
pellets, bgs., c.l., works ton.33.00 - —
powd., bgs., c.l., works ton.37.65 - —
solid, 73-75%, dms., c.l., frt. equald ton.25.50 - —
l.c.l., works, same basis. ton.34.00 -71.00
USP, gran., dms. lb. .32 - —
Chromate, bgs., frt. equald lb. .29½ - .30
Cyanide, dms., dlvd. E. of Rockies lb. .24 - .50
Gluconate, AA, bbls., dms. lb. .70 - .72
USP, bbls. dms lb. .53 - .65
Glycerophosphate, NF, fib. dms. lb. 2.30 - 2.45
Hydride, dms., works lb. 2.15 - 3.00
Hypochlorite, high test, cased (45 lbs.), dlvd. E. of Rockies cs.22.60 -24.75
dms. 100-lb., same basis dm 28.65 -32.50
Hypophosphite, dms., ton lots or less lb. .90 - .93
Iodide, jars lb. 4.52 - —
Lactate, USP, dms., 10,000-lb. lots or more, works lb. .40 - —
smaller lots, works lb. .41 - .48
Mandelate, USP, dms., works lb. 2.10 - 2.25
Naphthenate, liq., 4%, Ca, dms., frt. equald lb. .27¼ - —
Nitrate, fertilizer grade, bgs., c.l., Los Angeles ton.46.00 - —
tech., dms., works lb. .13 - —
d-Pantothenate, jars, 100-gram lots or more, frt. adjusted, gram .07½ - —
Para-aminosalicylate (see Calcium p-Aminosalicylate).
Phenolsulfonate, dms lb. .70 - —
Phosphate dibasic, USP, bgs., c.l., frt. equald 100 lbs. 7.10 - —
l.c.l., frt. equald 100 lbs. 7.60 - 7.95
feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton.79.55 - —
l.c.l., frt. equald ton.88.80 -89.55
20% P, bgs., c.l., t.l., frt. equald ton.84.55 - —
l.c.l., frt. equald ton.96.00 - —
21% P, bgs., c.l., t.l., frt. equald ton.90.30 - —
l.c.l., frt. equald ton.100.30 -100.80
monobasic, bgs., 10,000-lb. lots, frt. equald 100 lbs. 6.05 - —
smaller lots, same basis. 100 lbs. 6.55 - —
tribasic, precip., NF, bgs., c.l., frt. equald 100 lbs. 7.60 - —
l.c.l., frt. equald 100 lbs. 7.95 - —
Phytate, bgs., works lb. .37 - —
Resinate, precip., dms., frt. alld., works lb. .30½ - —
Silicate, hydrated, bgs., c.l., works. lb. .06 - —
l.c.l., works lb. .06½ - —
paint grade (see Wollastonite).
Stearate, ctns., c.l. lb. .35 - —
l.c.l. lb. .38 - .40
Sulfate (see Gypsum).
Calomel, USP, powd., dms lb. 5.42 - —
Camphene 46° m.p., dms., incl., c.l., works lb. .128 - —
l.c.l., same basis lb. .143 - —
tanks, same basis lb. .103 - —
Chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs lb. 3.00 - 3.19
nat., USP, powd., cs., 100-lb. lots. lb. .60 - .65
tablets, 1-oz., ½-oz. cs lb. .75 - .80
syn., tech., 1 bbl. or more lb. .52 - —
USP, gran., powd., bbls, 2,000-lb. lots lb. .59 - —
1,000-lb. lots lb. .60 - —
smaller lots lb. .61 - —
tablets, tins, 2,000-lb. lots lb. .90 - —
1,000-lb. lots lb. .91 - —
smaller lots lb. .92 - —
Canada balsam (see Fir balsam).
Cantharides, Chinese, cs lb. 2.00 - 2.05
powd., bxs lb. 2.25 - 2.30
Russian, bgs lb. 4.00 - 4.05
powd., bxs lb. 4.35 - 4.40
Capsicum (see Pepper red).
Oleoresin, NF, from domestic pepper, dms lb. 4.50 - 5.25
from African pepper, dms lb. 4.35 - 5.00
Caraway seed, Dutch, bgs lb. .18½ - —
Carbazole, 97%, bbls., ton lots, works lb. 1.05 - —
Carbinol, methyl isobutyl (see Methyl isobutyl carbinol).
Carbon dioxide, indust., wholesale, bulk, dlvd. metropolitan area. ton.73.00 -115.00
cyls., same basis lb. .08 - —
solid, same basis lb. .035 - .040
Disulfide, 55-gal. dms., c.l., works, frt. alld. to competitive points lb. .07 - —
l.c.l., same basis lb. .08½ - .09
5-gal. 30 dms. to c.l. same basis. lb. .13 - —
less than 30 dms lb. .16 - —
tanks, same basis lb. .0515 - —
Carbon tetrachloride, CP, dms., l.c.l., frt. alld. lb. .10½ - .13¼
tech., consumers, dms., c.l., E. Rockies, frt. alld lb. .10 - .10½
W. of Rockies, f.o.b., stock-points lb. .10½ - .11
l.c.l., E. of Rockies, frt. alld. lb. .11¾ - .12¼
W. of Rockies, f.o.b. stock-points lb. .12¼ - .12¾
tanks, E. of Rockies, frt. alld. lb. .08½ - .09
W. of Rockies, f.o.b. stockpoints lb. .09 - .09½
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb. lots, works lb. 4.00 - 4.25
smaller lots, works lb 4.10 - 4.75
Cardamom fruit, fancy, bold, cs. lb. 3.95 - —
AA, cs. lb. 3.60 - —
decorticated, Ceylon, cs. lb. 2.00 - —
Guatemalan, cs. lb. 2.15 - —
green, Alleppey, bgs. lb. 1.70 - —
Ceylon, bgs. lb. 1.75 - —
seed (see Cardamom fruit decorticated).
Carmine, No. 40, NF, bulk, 100-lb. lots or more, dlvd lb.14.40 - —
smaller lots, dlvd lb.14.50 -15.20
Carotene, tech., 1,350,000 A units per gram, tins, works gram. .53 - —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works. million units .18 - —
microcrystalline in oil, 400,000 A units per gram, tins, works million units. .33 - —
Carvol, bots. lb. 4.75 - 9.65
Cascara sagrada bark, bulk lb. .30 - .31
Casein, dom., acid precip., standard, bgs., 10,000-lb. lots or more, shipt. point lb. .27 - .30
premium, bgs., 10,000-lb. lots or more, shipt. point lb. .35 - .40
Casein, imp., Argentine, acid-precip., grd., 100-lb. lots or more, duty paid lb. .22 - .22¼
Cashewnut shell liquid, treated, dms., c.l., Newark, N. J lb. .22 - —
ton lots, same basis lb. .23 - —
dm. lots, same basis lb. .25 - —
Cassia, Batavia, cuttings, bls lb. .17 - —
longstick, cracked bls lb. .18 - —
shortstick, cracked, bls lb. .17 - —
Saigon, broken, bls lb. No prices.
medium, reconditioned, bls lb. No prices.
thin, bls lb. No prices.
Castor beans, bgs., c. & f ton.110.00 Nom.
Oil (see Oil, castor)
Pomace, bgs., c.l., works ton. No stocks.
Castoreum, nat., ctns lb. 5.00 -30.00
syn., ctns lb. 9.00 - —
Catechol, CP, cryst., fib. dms., works lb. 2.17½ - —
resub., dms., works lb. 4.29½ - —
Catnip leaves, Southern, bls lb. .75 - —
Celery seed, French, bgs., shipt. lb. .41 - —
Indian, bgs. lb. .17 - —
Cellulose scrap (see Pyroxylin scrap).
Acetate, flake, powd., ctns., bgs., 100-lb. lots or more, dlvd. E lb. .35 - .46
Acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E. lb. .545 - .553
27% butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .553
50% butyryl content, bgs., dlvd. E lb. .585 - .593
half-second, bgs., dlvd. E. lb. .545 - .553
Cerium hydrate, 74% CeO_2, fib. dms., 100-lb. lots or more lb. 1.44 - —
77% CeO_2, fib. dms., 100-lb. lots or more lb. 1.74 - —
Oxalate, NF, bbls., bgs., works lb. 1.32 - —
Oxide, optical grade, bgs., 50-lb. lots or more, dlvd lb. 1.85 - 1.98
smaller lots, dlvd lb. 2.03 - 2.23
Chalk (see Calcium carbonate).
Chamomile flowers, Hungarian style, cs lb. .85 - —
Roman, cs lb. 1.50 - —
Charcoal, activated, NF, fib. dms., c.l., works lb. .25 - .32
5-ton lots, works lb. .26½ - .32½
smaller lots works lb. .27 - .50
Bone (see Black, bone).
Hardwood, briquets, bgs., c.l., works ton 77.00 -88.00
gran., bgs., works ton 77.00 - —
bulk c.l., works ton 70.40 - —
Pinewood gran., powd., bgs., c.l., works, South ton.55.00 - —
l.c.l., works, South ton.55.00 -65.00
lump bgs., c.l., works, South ton.51.50 - —
l.c.l., works, South ton.54.50 -69.00
bulk, c.l., works, South ton.36.00 - —
Chestnut extract, liq., 25% tannin, bbls., c.l., works lb. .043¾ - —
l.c.l., works lb. .0510 - —
tanks, works lb. .04 - —
powd., 60% tannin, bgs., extra, c.l., works lb. .1032 - —
l.c.l., works lb. .1102 - —
Chloral, tech., 94% min., dms., c.l. works lb. .23 - —
l.c.l., works lb. .24 - —
tanks, works lb. .21 - —



THE VERSENES—"Versene" is the registered trade mark of certain synthetically prepared polyamino acids and their salts. As products of modern chelate chemistry, they form soluble, non-ionic chelates with polyvalent metallic ions and completely change their properties so that they can no longer react with other materials and be precipitated from solution by common precipitating agents.

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VERSENE REGULAR (The original Versene) inactivates all metallic ions but is not especially effective for chelating iron in *alkaline* solutions, yet it is the best iron chelating agent for use in *acidic* solutions.(liquid or powder).
VERSEN-OL is the trisodium salt of N-hydroxyethylethylene diamine triacetic acid*. It is a very effective agent for chelating trivalent iron from pH7 to pH10. It forms strong 1:1 ferric chelates. After chelating the iron it will then chelate other heavy metal or alkaline earth ions.(liquid or powder).
VERSENE Fe_3 SPECIFIC is the most powerful complexing agent known for *iron* in the alkaline pH range. It also chelates copper, nickel, cobalt and zinc.(47% solution).
VERSENE Fe_3 is a combination of VERSENE and VERSENE Fe_3 SPECIFIC. It complexes both iron and other metallic ions.(liquid or powder).
VERSENE-T complexes ferric and divalent metal ions including hard water salts in *any* caustic solution (55.5% solution).
VERSENE-9. This is the trisodium salt of EDTA. It has a pH of 9.3 in solution at 1% concentration. 1 gram complexes a minimum of 242 mgms. of $CaCO_3$. Its general chemical reaction is identical to Versene Regular.
VERSENE IRON CHELATE is an agricultural Versene to correct iron deficiency and cure chlorosis in citrus and other green growth occurring in *acid* soils. It is the disodium iron chelate of EDTA absorbed into inert vermiculite for convenience in application (50 lb. bags).
VERSEN-OL IRON CHELATE for agriculture is the monosodium iron complex of Versen-OL. It contains 19% min. of iron chelate calculated as NaFe EEDTA*, (4.29% Fe as Fe_2O_3). Balance inert. Cures iron deficiency in plants growing in *any* soil (50 lb. bags).
DISODIUM VERSENATE DIHYDRATE (dry powder) an Analytical Reagent grade of Versene Regular for research and analytical purposes.

VERSENATE INDICATOR (alcohol solution). Color indicator for Versenate method of water analysis.

CALCIUM DISODIUM VERSENATE (25% solution). Chemically Pure grade material for use as stabilizers in drugs, vitamins, pharmaceuticals.
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Independent Chemical Corp., One Hanson Place, Brooklyn 17, N. Y.
Barada & Page, Inc., Houston, Dallas, Corpus Christi, New Orleans, St. Louis, Wichita, Oklahoma City, Tulsa, Kansas City, Mo.
George Mann & Co., Inc., 251 Fox Point Blvd., Providence, R. I.
Braun-Knecht-Heimann Co., San Fransico, Calif., Salt Lake City, Utah
Van Waters & Rogers, Inc., Seattle, Wash. and Portland, Ore.
Braun Corporation, Los Angeles, California
European Manufacturing Agent:
Rexolinfabriken Aktiebolag, Helsingborg, Sweden

KEY TO CHELATION

Chemistry's most precise chemicals
VERSENES INCORPORATED
subsidiary of THE DOW CHEMICAL COMPANY
FRAMINGHAM, MASSACHUSETTS

Chloral Hydrate—Diphenylguanidine

Chloral hydrate, USP, 40-lb. jars, 1,000-lb. lots lb. 1.00 - —
500-lb. lots lb. 1.03 - —
100-lb. lots or less lb. 1.05 - —
Chlordan, agricultural, drums, c.l., frt alld lb. .65 - —
l.c.l., 5,000 to 10,000 lb. lots, frt alld lb. .66 - —
clarif., dms., c.l., frt. alld lb. .75 - —
l.c.l., 5,000 to 10,000 lb. lots, frt alld lb. .76 - —
Chloramine T, NF, bbls, works lb. .73 - 1.00
Chlorinated paraffin, 42%, dms., c.l., frt. alld lb. .15½- —
l.c.l., same basis lb. .16½- —
70%, dms., c.l., same basis lb. .18 - —
l.c.l., same basis lb. .19 - —
Rubber, 5, 10, 20 cps. ctns., c.l., works lb. .55 - —
l.c.l., works lb. .56 - —
125, 1,000 cps. ctns. c.l. works lb. .65 - —
l.c.l., works lb. .66 - —
Chlorine, liq., cyls., c.l., works, frt. equald lb. .09½- —
l.c.l., Metropolitan area lb. .11 - .12¼
tanks, single units, works, frt. equald 100 lbs. 2.93 - —
multiple units, 5 cars, works, frt. equald 100 lbs. 3.80 - 3.93
3 cars, same basis 100 lbs. 3.80 - —
2 cars, same basis 100 lbs. 5.00 - —
1 car, same basis 100 lbs. 6.00 - —
4-Chloro-2-aminotoluene, fused bbls. lb. 1.45 - —
m-Chloroaniline, dms., c.l., frt. equald lb. .75 - —
l.c.l., same basis lb. .80 - —
o-Chloroaniline, dms., c.l., works, frt. equald lb. .70 - —
l.c.l., same basis lb. .72 - —
p-Chloroaniline, dms., c.l., works, frt. equald lb. .75 - —
o-Chlorobenzaldehyde, dms., works. lb. 1.20 - —
p-Chlorobenzaldehyde, dms., works. lb. 1.33 - —
Chloroform, tech., dms., c.l., dlvd, E lb. .18 - —
l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms lb. .30 - —
2-Chloro-4-nitroaniline, paste, 100% basis lb. .81 - —
powd., dlvd, E lb. .86 - —
4-Chloro-2-nitroaniline, powd., dlvd, E lb. .80 - —
o-Chlorophenol, dms., c.l., frt. equald, lb. .34½- —
l.c.l., same basis lb. .35½- —
p-Chlorophenol, dms., c.l., frt. equald, lb. .34½- —
l.c.l., same basis lb. .35½- —
Chlorophyll, oil soluble, not fixed, 4%, pails, tins, works lb. 4.25 - —
copper fixed 6½% tins, pails, works lb 4.23 - —
Sodium-copper, aqueous soln. 4%, dms., pails, works lb 3.75 - —
8%, pails, dms., works lb. 4.00 - 4.50
14%, dms., works lb. 8.90 - —
conc., dom., 50%, dms., works, 100% basis lb.42.00 - —
75%, dms., works, 100% basis lb.45.00 - —
90%-100%, dms., works, 100% basis lb 45.00 - —
imp., 60%, tins, 100% basis, lb.58.00 - —
75%, tins, 100% basis lb.58.00 - —
90%, tins, 100% basis lb.58.00 - —
Chloropicrin, comi., bots lb 1.50 - —
cyls., 180 lbs frt allg lb .95 - —
100 lbs., same basis lb. .97 - —
25 lbs., same basis lb 1.22 - —
Cholesterol, USP fib dms., 100-lb. lots lb. 6.85 - 9.00
Choline bitartrate fib dms, frt adjusted lb. 1.25 - 1.50
Chloride fib dms., frt adjusted, lb 1.50 - 1.75
Dihydrogen citrate fib dms., frt. adjusted lb 1.50 - 1.75
Chromium acetate, soln. 7½%, bbls., works lb. .08½- —
cbys works lb. .10¼ —
Fluoride, bbls., works lb. .51 - .52
Green (see Green, chromic).
Oxide (see Green chromium oxide).
Trioxide, NF, bbls lb .82 - .89
Yellow (see Yellow chromic).
Cinchona bark, NF, red, broken, bgs lb. .35 - .40
yellow, broken, bgs lb. .35 - .40
Cinchonidine, cryst., cns., 100-oz. lots, oz. .65 - —
Sulfate, cns., 100-oz. lots oz. .35 - —
Cinchonine, cryst., cns., 100-oz. lots, oz. .52 - .57
Sulfate, NF, cns., 100-oz. lots oz. .27½- .30½
Cinchophen, NF, heavy density, dms., frt. adjusted lb. 3.70 - 4.05
standard density, dms., same basis lb. 3.50 - 3.85
Cinchophen-sodium, dms., frt. adjusted lb. 4.50 - 4.85
Cinnamic alcohol (see Alcohol cinnamic).
Aldehyde, cns., dms. lb. 1.00 - 1.30
Cinnamon, Ceylon, No. 2 lb. .54 - —
"0000," bgs lb. .75 - —
Citral, bots., cns lb. 7.05 - —
Citronellal, bots., dms lb. 1.85 - 2.50
Citronellol, bots., dms lb. 4.40 - 5.00
Civet, artif., bots lb.13.75 -15.00
nat., bots oz. 7.50 -15.00
Clay, ball, dom., airfloated, bgs., c.l., Tenn ton.19.50 - —
crushed, shed moisture, bulk, c.l., Tenn ton.10.00 - —
purif., bgs., c.l. Tenn ton.20.50 - —
imp., airfloated, bgs., c.l., Atl. port long ton.42.00 -45.00
lump, bulk, Atl. port long ton.27.00 -30.20
China, dom., dry-grd., airfloat, 99%, 325 mesh, bgs., c.l., Georgia, works ton.10.00 - —
l.c.l., Georgia works, ton.15.50 - —
300 mesh, bgs., c.l., Georgia, works ton.13.50 -14.50
l.c.l. ton.35.00 -36.00
imp., white, lump, bulk, c.l., ex dock, Phila., Portland, Me. gross ton.20.00 -35.00
powd., bgs., c.l., ex dock net ton 50.00 —
l.c.l., ex whse net ton.60.00 -65.00
Clove, Madagascar, bgs lb. .48 - —
Zanzibar, bls. lb. .48 - —
CMC, crude, 96%, low or medium vis., bgs., or fib. dms., 23,000 lbs., dlvd. E., 100% basis, lb. .37 - —
less than 23,000 lbs., dlvd. E., 100% basis lb. .41 - —
65%, bgs., or fib. dms., c.l., dlvd. E., 100% basis lb. .37 - —
l.c.l., dlvd. E., 100% basis, lb. .41 - —
purif., high vis. (see Gum Cellulose), standard, low or medium vis., bgs., 23,000 lbs. or over, works, frt. alld lb. .55 - —
smaller lots, same basis lb. .57 - —

CMC prices W. of the Rockies are 2c. per lb. lower, and are on a works basis.

Coaltar, crude, resale dms., c.l., ex-whse. gal. .255 - —
l.c.l., ex-whse gal. .275 - —
tanks, ex works gal. .155 - .159
refd., resale, dms., c.l., ex-whse. gal. .2650- .32
l.c.l., ex-whse gal. .2850- .34
tanks, ex-whse gal. .1650- .1760
Cobalt acetate, 23.7%, bbls., dlvd. lb. 1.30 - —
Carbonate, 46% powd., bgs., dlvd. lb. 2.15 - —
Chloride, 24.2% Co, kgs., dlvd., lb. 1.20 - —
Hydrate, 60-61% Co, bbls., dlvd. lb. 2.72 - —
Linoleate, fused, 8½% Co., dms. lb. .75¼- —
liq., 6% Co., dms lb. .61 - —
Metal, 97-99% kgs., ex whse lb. 2.60 - —
Naphthenate, liq., 6% Co., dms., dlvd lb. .48¼- —
Nitrate, 20.1% Co, bbls., dlvd lb. 1.00 - —
Oxide, black, 72½-73½% Co., kgs. lb. 1.96 - —
70-71% Co. kgs lb. 1.90 - —
Phosphate, powd., 32.1% Co., kgs., dlvd lb. 1.69 - —
Resinate, fused, 3% Co., dms lb. .29¾- —
Sulfate, cryst., 21% Co., dms., dlvd lb. .89 - —
monohydrated, 33% Co, dms dlvd lb. 1.40 - —
Tallate, 6% Co., dms., dlvd lb. 43¾- —
Cocaine, USP, cns., 100-oz. lots oz. 17.80 - —
Hydrochloride, cns., 100-oz. lots oz. 13.75 - —
Cocillana bark, bgs lb. .40 - .50
Cocoa butter, bgs lb. .62 - .68
Codeine, NF, cns., 100-oz. lots oz. 13.25 - —
Hydrochloride, cns., 100-oz. lots oz. 11.75 - —
Phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Sulfate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil (see Oil, codliver).
Cohosh root, black, bls lb. .20 - .22
blue, bls lb .20 - .22
Colchicine, USP, bots., cns oz. 33.50 -40.00
Colchicum root, bls lb. .45 - .55
seed, bgs lb. .80 - 1.10
Collodion, USP, dms lb. .32½- —
flexible, USP, dms lb. .34 - —
Colocynth, pulp, bls lb. .25 - .30
Colombo root, bls lb. No prices.
Condurango bark, bales lb. .40 - 50
Copaiba balsam, cns, dms lb. .90 - 1.20
Copper acetate, bbls., c.l., works lb. .43 - —
l.c.l., works lb. .44 - —
Carbonate, 55%, bgs., works lb. .30 - .31½
Chloride, anhyd., bbls., works lb. .43½- —
cryst., bbls., works lb. .29 - .29½
Cyanide, tech., bbls., 20,000 lb. lots or more lb. .707 - —
1,000-lb. lots or more lb. .717 - —
smaller lots lb. .737 - —
Gluconate, cns, dms lb. 3.00 - 3.24
Hydrate, dms., frt. alld, E. Miss. lb. .45¼- .45¾
Metal, electrolytic, dlvd., Valley basis lb. .36 - —
Naphthenate, liq., 8% Cu., dms., frt. alld lb. .24 - —
Nitrate, tech., cryst., bbls., works, lb. .33¼- —
Oleate, solid, 9% Cu, dms., works lb. .45 - —
Oxide, black, bbls., 500-lb. lots or more, works lb. .47 - —
red, 97%, USN Type I, bbls., lb. .53½- .68
90%, USN Type II, bbls., 500-lb. lots or more, works lb. .48½- .51½
Oxychloride, dms., works lb. .46 - .56½
Quinolinate, fib. dms lb. 4.25 - 4.50
Resinate, precip., dms., frt. alld lb. .31½- —
Sulfate, CP, gran., bbls., works lb. .1915- —
cryst., 99%, bgs., c.l., works, 100 lbs. 12.25 - —
l.c.l., works 100 lbs. 12.75 -13.25
monohydrated, 35% dms., c.l., works 100 lbs. 19.75 - —
l.c.l., works 100 lbs. 20.50 - —
tribasic, dealers, bgs., c.l., works, frt. alld 100 lbs. 26.25 - —
l.c.l., works 100 lbs. 27.25 -28.25
Undecylenate, dms lb. 2.90 3.00
Copperas (see Ferrous sulfate).
Copra, Atl. Gulf ports, c.i.f. ton.164.00 Nom.
Pacific ports, c.i.f lb.160.00 Nom.
Coriander seed, Moroccan, bgs lb. .09¼- —
Roumanian, bgs. lb. .06½- —
Yugoslavian, bgs. lb. .06 - —
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs 7.31 - —
l.c.l. 100 lbs. 7.46 - —
Syrup, 42 dms., c.l. 100 lbs 7.32 - —
l.c.l. 100 lbs. 7.46 - —
Corrosive sublimate (see Mercuric Chloride)
Cortisone acetate, NNR, bulk gram. 3.50 3.55
Cottonseed meal, exp. 41%, bgs., Memphis ton.60.00 - —
Coumarin, cryst., NF, dms lb. 3.10 3.20
Cramp bark, NF, bls lb. .85 - .90
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots. cbys. lb. 3.05 3.26
Coaltar, crude, tanks, works, frt. adjusted gal. .22 —
soln., 80%, tanks, works gal. .2068- —
refd., dms., c.l., works gal. .40 - .42
l.c.l., same basis gal. .50 - .53
tanks, same basis gal. .30 - .33
Wood, beechwood, cbys., dms lb. 1.60 - 1.65
hardwood, NF, bots., cbys lb. 1.30 - 1.35
pinewood, tanks, works lb. .427 - .438
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret., dms. c.l. frt equald lb. .133 - —
l.c.l. same basis lb. .136 - —
tanks, same basis lb. .12 - —
USP, non-ret., dms., c.l., same basis lb. .143 - —
l.c.l., same basis lb. .146 - —
ret. dms., c.l., same basis lb. .140 - —
l.c.l., same basis lb. .145 - —
tanks, same basis lb. .130 - —
m-Cresol, 95-98%, dms., c.l., works, lb. .60 - —
l.c.l. works lb. .61 - —
o-Cresol, m.p. over 30°C., ret. dms., c.l., frt. equald lb. .173 - —
l.c.l., same basis lb. .176 - —
tanks, same basis lb. .16 - —
29°C., ret. dms., c.l., frt. equald, lb. .16 - —
l.c.l., same basis lb. .16½- —
tanks, same basis lb. .15 - —
25-29°C., dms., c.l., frt. equald lb. .153 - —
l.c.l., same basis lb. .156 - —
tanks, same basis lb. .14 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .49 - —
l.c.l., dlvd lb. .51 - —
Methyl ether, cns lb. 1.90 - 2.50
Crotonaldehyde, 91-93%, dms., l.c.l., works lb. .24¼- .25
Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
l.c.l., works 100 lbs. 14.25 - —
Insecticide, dealers, bgs., c.l., dlvd 100 lbs. 16.75 - —
l.c.l., dlvd 100 lbs. 17.75 - —
Cube root, powd., 5% rotenone, bgs., c.l., t.l., works lb. .26 - —
l.c.l., works lb. .27 - .27½
Cubeb berries, XX, NF, bgs lb. .60 - .65
powd., cs lb. .75 - .80
Cumene, dms., c.l., works lb. .12 - —
l.c.l., works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs lb. .13 - —
Turkish, bgs. lb. .13 - —
Cutch extract, 55% tannin, bgs., ex dock, duty extra lb. .08½- —
Cyanamide, fertilizer mixing grades, 20.6% N, gran., bgs., Niagara Falls, Ont., contract ton.55.00 - —
pulv., 21% N, bgs., works, unit-ton 2.75 - —
Indust. grade, bgs., c.l., works ton.75.00 - —
l.c.l., bgs., works ton.96.00 - —
6-16 mesh, dms. c.l., works ton.120.00 - —
l.c.l., dms., works ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., works gal. .70 - —
l.c.l., works gal. .72 - —
tanks, works gal. .55 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld., E lb. .28½- .37¾
l.c.l., works, same basis lb. .30 - .38¼
tanks, works, same basis lb. .27 - .36¼
Cyclohexanone, tech., dms., c.l., works lb. .33½- —
l.c.l., works lb. .35 - —
tanks, works lb. .32 - —
Cyclohexylamine, dms., c.l., works. lb. .46½- —
l.c.l., works lb. .47½- —
tanks, works lb. .45 - —
Cyclopropane, CP, 2-lb. cyls., works. cyl.48.00 - —
6 oz. cyls., works cyl.12.00 - —
USP, hospitals, cyls., 40-gal. lots. gal. .38 - —
100-gal. lots gal. .37 - —
200-gal. lots gal. .36 - —

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2-4-D, tech., dms., c.l., works, frt. equald lb. .41½- —
l.c.l., same basas lb. .46½- .48½
2-4-D, butyl ester, dms., c.l., works lb. .43 - —
l.c.l., same basis lb. .48 - .50
Isopropyl ester, dms., c.l., works. lb. .43 - —
l.c.l., works lb. .48 - .50
Dandelion root, bls lb. .35 - .40
DDD, tech., flake, grd., fib. bgs., c.l., works lb. .45 - —
l.c.l., works lb. .46 - —
DDT powder, bgs., c.l., works, frt equald lb. .27 - —
smaller lots, same basis lb. .29 - —
fib. dms., c.l., same basis lb. .28 - —
smaller lots, same basis lb. .30 - —
1-Decanol, tech., dms., c.l., dlvd lb. .41 - —
l.c.l., dlvd. lb. .43 - —
tanks, dlvd. lb. .38½- —
Deerlongue leaves, bls lb. .45 - —
Defluorinated phosphate, feed grade, 13% P, paper bgs., c.l., t.l., works ton.53.40 - —
14½% P, paper bgs., works ton.48.00 - —
17% P, paper bgs., works ton.56.00 - —
18% P, paper bgs., works ton.69.85 - —
Degras, common, bbls lb. .10 - .12
neutral, less 2% ffa., bbls lb. .23 - .24
over 2% ffa., bbls lb. .22 - .23
d-Desoxyephedrine hydrochloride bots lb.25.00 - —
dl, bots. lb 6.50 - —
white, paper bgs., c.l. 100 lbs. 8.53 - —
l.c.l. 100 lbs. 9.10 - —
canary, paper bgs., c.l. 100 lbs. 8.69 - —
l.c.l. 100 lbs. 8.84 - —
dark, paper bgs., c.l. 100 lbs. 8.79 - —
l.c.l. 100 lbs. 8.94 - —
Dextrin, corn, gum, white, paper bgs., c.l. 100 lbs. 8.53 - —
l.c.l. 100 lbs. 8.68 - —
Corn dextrin in cotton bgs. 25c. per 100 lbs. higher.
Potato, bgs lb. .10½- .11
Dextrose, USP, dms lb. .17¾- —
Diacetone (see Alcohol diacetone).
Diacetyl, flavor grade, bots lb. 4.50 - 5.50
Di-sec-amyl phenol, dms., c.l., works lb. .30¼- —
l.c.l., works lb. .33¼- —
tanks, works lb. .28¼- —
Di-tert-amyl phenol, dms., c.l., works lb. .30¼- —
l.c.l., works lb. .33¼- —
tanks, works lb. .28¼- —
o-Dianisidine, fib. dms lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .89¾- .90
l.c.l., same basis lb. .90¼- .91
tanks, same basis lb. .88 - —
p-Dibromobenzene, bgs., 500-lb. lots lb. .55 - —
Dibutyl phthalate, dms., c.l., dlvd, E lb. .32 - —
l.c.l., same basis lb. .33 - —
tanks, same basis lb. .30 - —
Sebacate, dms., c.l., works lb. .68 - —
l.c.l., works lb. .68½- .69
tanks, works, dlvd lb. .66 - .66½
Tartrate, dms., works, frt. alld lb. .64 - .71
Dibutylamine, dms., c.l., dlvd lb. .55 - —
l.c.l., same basis lb. .56 - —
tanks, same basis lb. .53 - —
Di-tert-butyl-p-cresol, dms., c.l., works lb. .91 - —
l.c.l., works lb. .95 - —
Dicapryl phthalate, dms., c.l., dlvd., works lb. .30½- .31½
l.c.l., same basis lb. .31½- .32½
tanks, same basis lb. .29½- —
Sebacate, dms., c.l., works lb. .63 - —
l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¼- —
l.c.l., same basis lb. .13¼- —
tanks, same basis lb. .10¾- —
p-Dichlorobenzene, dms., c.l., frt. alld. E lb. .14½- —
l.c.l., same basis lb. .17 - —
Dichlorodiphenyltrichloroethane (see DDT).
Dichloropentanes, dist., dms., c.l., works lb. .05 - —
l.c.l., works lb. .05¾- —
tanks, works lb. .04¼- —
Dicyclohexylamine, dms., c.l., works. lb. .51 - —
l.c.l., works lb. .51¾- —
tanks, works lb. .49¾- —
Dicyclohexyl phthalate, fib. dms., c.l., frt. alld., works lb. .58¼- .59
l.c.l., same basis lb. .59¼- .60
Dieldrin, dms., frt. alld lb. 1.80 - —
l.c.l., frt. alld lb. 1.85 - —
Diethanolamine, dms., c.l., dlvd, E. lb. .26½- —
l.c.l., same basis lb. .27½- —
tanks, same basis lb. .24½- —
Diethyl carbonate, dms., c.l., frt. alld lb. .47 - —
l.c.l., same basis lb. .48 - —
tanks, same basis lb. .45 - —
Ethanolamines, dms., c.l., dlvd lb. .67½- —
l.c.l., dlvd lb. .68½- —
tanks, dlvd lb. .65½- —
Oxalate, dms., c.l., frt. alld lb. .42 - —
l.c.l., same basis lb. .43 - .45
tanks, same basis lb. .40 - —
Diethyl carbonate, phthalate, dms., c.l., dlvd lb. .27 - —
l.c.l., dlvd. lb. .28 - —
tanks, dlvd. lb. .25 - —
Sulfate, dms., c.l., works lb. .18¾- —
l.c.l., works lb. .19¼- —
tanks, works lb. .17 - —
Diethylamine, dms., c.l., dlvd, E lb. .50½- —
l.c.l., same basis lb. .51½- —
tanks, same basis lb. .48½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .51 - —
l.c.l., same basis lb. .52 - —
tanks, same basis lb. .50 - —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd, E. lb. .16½- —
l.c.l., same basis lb. .17½- —
tanks, same basis lb. .14¾- —
Borihorate, dms., l.c.l. lb. .31 - —
Diethyl ether, dms., c.l., works lb. .46½- —
l.c.l., works lb. .47 - —
Monobutyl ether, dms., c.l., lb. .28¾- —
l.c.l., dlvd. lb. .29¾- —
tanks, dlvd. lb. .27 - —
Acetate, dms., c.l., works lb. .30 - —
l.c.l., works lb. .30½- —
tanks, dlvd. E lb. .28¼- —
Monoethyl ether, dms., c.l., dlvd, lb. .22 - —
l.c.l., dlvd lb. .23 - —
tanks, dlvd lb. .20 - —
Acetate, dms., c.l., works lb. .28¾- —
l.c.l., works lb. .27¼- —
tanks, dlvd, E lb. .25¼- —
Monomethyl ether, dms., c.l., works lb. .20½- —
l.c.l., works lb. .21½- —
tanks, works lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd, E lb. .43 - —
l.c.l., same basis lb. .44 - —
tanks, same basis lb. .41¼- —
Diethylstilbestrol, USP, bots., tp. kilo lots kilo.100.00 - —
1-kilo lot kilo.110.00 - —
Digitalis leaves, USP, dom. dms., lb. .90 - 1.10
Digitoxin, USP, bots gram. 5.00 - 5.50
Diglycol laurate, dms lb. .35 - .38
Oleate, dms lb. .31 - —
Stearate, dms lb. .26 - .27
Dihexyl sebacate, dms., c.l., works lb. .64 - —
l.c.l., works lb. .64½- .65
tanks, works lb. .62 - —
Dihydrazine sulfate, dms., works. lb. 1.10 - 1.25
Dihydrostreptomycin hydrochloride, bulk gram. .11 - .12
Sulfate, bulk gram. .11 - .12
2,2-Dihydroxy-5,5'-dichloro-diphenylmethane, pure, dms lb. 2.80 - 3.00
tech. dms lb. 1.04 - 1.14
Di-isobutyl ketone, dms., c.l., dlvd. lb. .15½- —
l.c.l., dlvd lb. .16½- —
tanks, same basis lb. .13½- —
Phthalate, dms., c.l., dlvd, E lb. .31 - —
l.c.l. same basis lb. .32 - —
tanks, same basis lb. .29 - —
Di-isobutylene, dms., c.l., works lb. .10 - —
l.c.l., works lb. .11 - —
tanks, works lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .32½- —
l.c.l., same basis lb. .33½- —
tanks, same basis lb. .30½- —
Sebacate, dms., c.l., dlvd, E lb. .63 - —
l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
Di-isopropylamine, dms., c.l., dlvd, E, of Rockies lb. .50 - —
l.c.l., same basis lb. .51 - —
tanks, same basis lb. .48 - —
Dillseed, dewhiskered, bgs lb. .11 - —
nat., bgs lb. .10 - —
Dimethyl anthranilate, cns. lb. 5.25 - 5.75
Chloroacetal, dms., c.l., works lb. .45 - —
l.c.l., works lb. .50 - —
tanks, works lb. .40 - —
Ethanolamines, anhyd., dms., c.l., dlvd lb. 1.43 - —
l.c.l., dlvd lb. 1.45 - —
tanks, dlvd lb. 1.40 - —
70%, dms., c.l., dlvd., 100% basis lb. .68 - —
tanks, dlvd., 100% basis lb. .66 - —
Hydroquinone, dms. lb. 1.70 - 2.75
Phthalate, dms., c.l., works lb. .29½- —
l.c.l., works lb. .30½- —
tanks, dlvd. lb. .27½- —
Sebacate, dms., c.l., works lb. 1.27 - —
l.c.l., works lb. 1.28 - —
tanks, works lb. 1.25 - —
Sulfate, 55-gal., ret, dms., c.l., works lb. .15 - —
l.c.l. works lb .16 - —
10-gal. ret. dms., l.c.l., works. lb. .16½- —
Dimethylamine, 25% soln., dms., c.l., frt. equald lb. .42 - —
l.c.l., frt. equald lb. .42½- —
tanks, frt. equald lb. .33 - —
40% soln., dms., c.l., frt. equald lb. .39 - —
l.c.l., frt. equald lb. .39½- —
tanks, frt. equald lb. .33 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .29½- —
l.c.l., frt. alld lb. .30½- —
tanks, frt. alld lb. .28¼- —
N,N-Dimethylformamide dms., works. lb. .34 - .39
tanks, works lb. .33 - —
2,4-Dinitroaniline, dms., frt. equald lb. .57 - —
m-Dinitrobenzene, 85°C., dms lb. .20 - —
89°C., dms lb. .22 - —
3,4-Dinitrochlorobenzene, dms., c.l., frt. alld. E lb. .15¼- —
l.c.l., frt. alld. E lb. .15¾- —
tanks, frt. alld., E lb. .15 - —
2,4-Dinitrophenol, bbls. lb. .37 - —
2,4-Dinitrotoluene, oily, dms. lb. .10 - —
refd., 68°C., dms. lb. .21 - —
Dioctyl adipate, dms., c.l., works. lb. .44½- —
l.c.l., works lb. .45½- —
tanks, works lb. .42½- —
Phthalate, dms., c.l., frt. alld. lb. .32½- —
l.c.l., frt. alld lb. .33½- —
tanks, frt. alld lb. .30½- —
Sebacate, dms., c.l., works, lb. .63 - —
l.c.l., works lb. .63½- .64
tanks, works, dlvd lb. .61 - .61¼
Di-o-tolyguanidine, dms., ton lots, dlvd. lb. .57 - —
smaller lots, dlvd lb. .58 - —
1,4-Dioxane, dms., c.l., works lb. .28¾- —
l.c.l. same basis lb. .29¼- —
tanks, same basis lb. .27 - —
Dip oil (see Tar acid oil).
Dipentaerythritol, bgs., l.c.l., works. .35 - —
Dipentene, dest-dist., dms., c.l., works gal. .405 - —
l.c.l., works gal. .455 - —
ex-whse gal. .57 - —
steam-dist., dms., c.l., works, South. gal. .64 - —
dlvd. N. Y gal. .82 - —
tanks, works, South gal. .50 - —
Diphenyl, bbls., c.l., works lb. .15 - —
l.c.l., works lb. .16 - —
Diphenyl in bags ¼c. lower.
Oxide, perfume grade, cns lb. .54 - .61
Phthalate, dms., c.l., works lb. .51¾- —
l.c.l., works lb. .53¾- —
Diphenylguanidine dms., ton lots lb. .48 - —
smaller lots lb. .49 - .50

Dow

DOW BROMIDES

FINDING INCREASED USE FOR RELIEF OF NERVOUS TENSION

Due to the pace and problems of the times, a sharp rise in the need for preparations to relieve tension and induce sleep has occurred in recent years. Prominent among the means of effectively alleviating tensions of the nervous system are Dow's ammonium bromide, N.F., potassium bromide, U.S.P., and sodium bromide, U.S.P.

Dow bromides differ significantly from other somnifacients in the absence of depressant action upon intellectual centers. In combating insomnia, for instance, they achieve good results by easing tension and through dulling of the sensibilities to noise and bodily discomforts.

In the preparation of pharmaceuticals to allay general nervous excitation and insomnia, to alleviate pain and as an aid in checking convulsions, Dow bromides offer an easy means to successful formulation. For samples and more detailed information on these superior bromides write to THE DOW CHEMICAL COMPANY, Midland, Michigan, Dept. FC 360C.

you can depend on DOW CHEMICALS DOW

Diphenylhydantoin-Sodium—Ethyl Cinnamate

Diphenylhydantoin-sodium USP, dms lb. 5.30 - 5.60

Dipropylene glycol, dms., c.l., frt. alld lb. .16½- —
l.c.l., same basis lb. .17½- —
tanks, same basis lb. .14¾- —

Monomethyl ether, dms., c.l., dlvd. E lb. .20 - —
l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½- —

Divi-divi, 45% tannin, bgs., bls., c.l., U.S. ports, exdock ton 70.00 -72.00

Divinylbenzene, 20-25% dms., c.l., works lb. .20 - —
l.c.l., works lb. .21
tanks, works lb. .19 - —
40-50%, dms., c.l., works, 100% basis lb. 1.00 - —
l.c.l., works, 100% basis lb. 1.15 - —

Dodecylbenzene, dms., c.l., frt. equald lb. .14½- —
l.c.l., same basis lb. .15½- —
tanks, same basis lb. .12½- —

Dyes, coaltar, certified colors for food, drugs and cosmetics, 5-lb and 1-lb. lots, dlvd:—
Blue, FD & C, No. 1, cns lb.17.00 -17.60
No. 2, cns lb.17.00 -17.60
Green, FD & C, No. 1, cns lb.17.00 -17.60
No. 2, cns lb.22.20 -2285
No. 3, cns lb.35.25 -35.90
Orange, FD & C, No. 1, cns lb. 3.65 - 3.75
No. 2, cns lb. 4.65 - 4.75
Red, FD & C, No. 1, cns lb. 7.55 - 7.85
No. 2, cns lb. 4.00 - 4.10
No. 3, cns lb.22.20 -22.85
No. 4, cns lb. 7.20 - 7.50
No. 32, cns lb. 5.30 - 5.40
Violet, FD & C, No. 1, cns lb.17.00 -17.60

Dyes, coaltar, certified colors for food, drugs and cosmetics, 5-lb and 1-lb. lots, dlvd.:—
Yellow, FD & C, No. 1, cns lb.10.50 -11.05
No. 3, cns lb. 3.30 - 3.40
No. 4, cns lb. 3.30 - 3.40
No. 5, cns lb. 4.00 - 4.10
No. 6, cns lb. 4.00 - 4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 1-lb. lots, works, 25-50 lb. lots, dlvd:—
Black, D&C, No. 1, cns lb.10.95 • —
Brown, D&C, No. 1, cns lb.16.10 • —
Green, D&C, No. 5, cns lb.16.10 • —
No. 6, cns lb.16.10 • —
No. 7, cns lb.14.80 • —
Orange, D&C, No. 3, cns lb.10.95 • —
No. 4, cns lb.20.05 • —
No. 5, cns lb. 5.70 • —
No. 10, cns lb.20.70 • —
Red, D&C, No. 8, cns lb. 2.85 • —
No. 9, cns lb. 2.85 • —
No. 10, cns lb. 2.30 • —
No. 11, cns lb. 1.85 • —
No. 12, cns lb. 2.65 • —
No. 17 cns lb.10.95 • —
No. 18, cns lb.24.00 • —
No. 19, cns lb.15.45 • —
No. 21, cns lb. 3.60 • —
No. 22, cns lb.10.95 • —
No. 28, cns lb.24.65 • —
No. 33, cns lb.17.45 • —
Violet, D&C, No. 2, cns lb.16.10 • —
Yellow, D&C, No. 7, cns lb.10.95 • —
No. 10, cns lb.13.50 • —
No 11, cns lb.13.50 • —

Dyes, coaltar, certified, colors for drugs and cosmetics, external use, 1-lb. lots, works, 25-50 lb. lots, dlvd:—
Blue, Ext., D&C, No. 1, cns lb.16.10 • —
Green, Ext., D&C, No. 1, cns lb.16.10 • —

Dyes, coaltar, certified colors for drugs and cosmetics, 1-lb. lots, works, 25-50 lb. lots, dlvd.
Red, Ext., D&C, No. 1, cns lb.13.50 • —
Yellow, Ext., D&C, No. 1, cns lb.10.95 • —
20 Chrysoidine Y, dustless lb. .81 • —
27 Fast light orange 2G lb. .99 • —
31 Phloxine 2G lb. .81 • —
36 Yellow 2G lb. .91 —

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract, dlvd. No.
40 Orange R extra, conc lb. 1.17 • —
57 Fuchsine 6B lb. 1.19 • —
79 Scarlet 2R lb. .89 • —
151 Orange AD lb. .61 • —
161 Orange RR lb. .73 • —
176 Fast red A lb. 1.07 • —
179 Rubine XX, conc lb. 1.14 • —
180 Blue F4B lb. 1.01 • —
185 Brilliant scarlet 3RN, conc. lb. .93 • —
202 Chrome blue black, conc lb. .75 • —
203 Chrome black T lb. .86 • —
208 Fast blue SR lb. 1.00 • —
216 Chrome red B lb. .84 • —
234 Brown Y lb. .98 • —
246 Blue black, extra, conc lb. 1.05 • —
275 Milling red 3R, conc lb. 2.03 • —
289 Navy blue 3R, conc lb. 1.31 • —
299 Black F, conc lb. 1.69 • —
304 Neutral black 2B, conc. lb. 2.21 • —
326 Fast scarlet 4BNC lb. 1.64 • —
332 Bismark brown RX, conc. lb. .95 • —
365 Brilliant yellow, conc lb. 2.83 • —
382 Scarlet B lb. 2.00 • —
401 Diazo black BHD lb. .72 • —
406 Blue 2B, extra conc lb. 1.18 • —
419 Red FC, conc lb. 1.12 • —
420 Brown M lb. 1.08 • —

Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour index scale or prototype), contract, dlvd. No.
448 Red 4BX, conc lb. 1.30 • —
518 Diamine sky blue FF, extra, conc lb. 1.50 • —
561 Brown B lb. 2.23 • —
581 Black EB, 200% lb. 1.03 • —
593 Green BY, conc lb. .79 • —
598 Yellow Brown R, extra lb. .98 • —
620 Yellow 2G lb. 1.79 • —
640 Yellow XX lb. 1.61 • —
655 Yellow OX lb. 2.04 • —
657 Green V lb. 2.10 • —
662 Brilliant green G lb. 2.79 • —
667 Brilliant milling green 6B, conc lb. 3.68 • —
671 Blue EG lb. 1.70 • —
681 Crystal violet powder lb. 2.15 • —
698 Violet 4BXN lb. 1.74 • —
720 Brilliant blue BBG lb. 1.88 • —
729 Blue B, conc lb. 2.79 • —
749 Red BX lb. 4.33 • —
814 Yellow NN, conc lb. 3.11 • —
841 Safranine GF, extra, conc. lb. 3.17 • —
835 Nigrosine WSJ lb. .75 • —
922 Blue GXX lb. 1.71 • —
978 Black GXCF, conc lb. .32 • —
1034 Alizarine red SC lb. 2.59 • —
1054 Alizarine blue SAPX lb. 2.91 • —
1078 Alizarine green CG, extra lb. 2.72 • —
1085 Alizarine blue, black, B lb. 2.33 • —
1096 Golden orange GFD, single paste lb. 1.99 • —
1099 Dark blue BO, single paste. lb. 1.75 • —
1101 Jade green N, double paste. lb. 1.98 • —
1106 Blue RS, double paste lb. 3.26 • —
1113 Blue BLFD, double paste lb. 2.48 • —
1150 Olive R, single paste lb. 1.10 • —
1151 Brown R, single paste lb. 1.76 • —
1171 Indigo synthetic, 20% paste lb. .31 • —
1217 Orange RD, single paste lb. 1.65 • —
p-4 Brown PG lb. 2.30 • —
p-14 Brown EB lb. 1.66 • —
p-24 Gray L lb. 1.60 • —
p-80 Diazo brilliant scarlet ROAD lb. 2.79 • —
p-202 Diazo black VJ, conc lb. 1.91 • —
p-244 Brilliant scarlet BN lb. 1.31 • —
p-313 Naphthol SWF lb. 2.42 • —

Dyes, coaltar, for stains, oil-soluble, 100-lb. dms., sellers' works
Black blue No. 550 lb. .81 • —
Jet No. 551 lb. .89 • —
Brown R, conc lb. 1.72 • —
Orange R, brilliant lb. .90 • —
Red 4B, conc lb. 1.37 • —
Yellow C lb. 1.18 • —
FN, conc lb. 1.22 • —

Dyes, coaltar, for stains, spirit-soluble, 100-lb. dms., sellers' works:—
Auramine O lb. 1.85 • —
Black, basic blue lb. 1.21 • —
Jet lb. 1.21 • —
Blue, methylene, 2B, conc lb. 1.71 • —
Brown Bismarck R, conc lb. .86 • —
Chrysoidine, R, extra lb. .60 • —
Y, extra lb. .64 • —
Fuchsine, conc lb. 3.08 • —
Green, malachite, conc lb. 2.10 • —
Rhodamine, B lb. 4.33 • —
Safranine, Y, conc lb. 2.90 • —
Violet, methyl, B lb. 1.10 • —

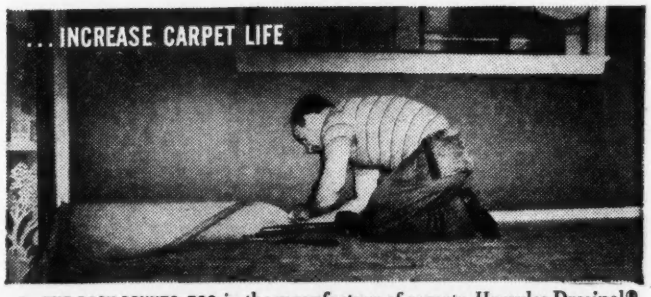
Dyes, coaltar, for stains, water-soluble, 100-lb. dms., sellers' works:—
Azo rubine R, extra, conc lb. 1.04 • —
Black, acid blue, B, extra lb. .86 • —
Fast light, 3 G, extra lb. 2.04 • —
Methanil, conc lb. .91 • —
Orange acid, Y, conc lb. .47 • —
Scarlet croceine, MOO lb. 1.45 • —
Yellow, azo, conc lb. .90 • —

Oil-soluble, spirit-soluble, water-soluble in kegs, 3c. higher; tins, 10c. higher.

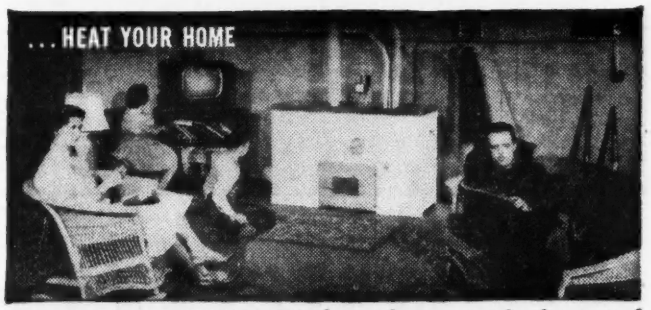
E

Echinacea root, bls lb. 1.10 • —
Egg albumin (see Albumin).
Yolk, dried, dom., bbls lb. 1.12 • 1.14
tanners, bbls. lb. .06 • .06¼
Elder flowers, bright, bls lb. .35 • .40
Elm bark, grinding, bls lb. .30 • .32
powd., bbls., bxs lb. .45 • —
select, bundles lb. .75 • —
Emetine hydrochloride, USP, bots oz. 32.95 -35 00
Endrin, tech., dms., dlvd., basis 100% lb. 3.75 • —
Ephedrine, syn., USP, anhyd., bots., 100-oz. lots oz. .98 • 1.00
hydrous, bots., 100-oz. lots oz. .92 • —
Hydrochloride, tins, 100-oz. lots. oz. .75 • —
Sulfate, cryst., tins, 100-oz. lots. oz. .72 • —
powd., tins, 100-oz. lots oz. .73 • —
Epichlorohydrin, dms., c.l., dlvd lb. .35 • —
l.c.l., dlvd lb. .36 • —
tanks, dlvd lb. .33 • —
Epinephrine, syn., USP, bots., 100-gram lots gram. .45 • .55
Epsom salt (see Magnesium sulfate)
Ergosterol, unirradiated, cryst kilo. 150 00 • —
Ergot, NF, dms., tin-lined lb 3.00 • —
Eserine salicylate, bots oz. 35.75 • —
Sulfate, bots oz. 39.50 • —
Ether (see specific product)
Ethyl acetate, nat. ferment., 85-88%, dms., c.l., frt. alld lb. .13 • —
l.c.l., frt. alld lb. .14 • —
tanks, frt. alld lb. .11 • —
95-98%, dms., c.l., frt. alld. lb. .13¼- —
l.c.l., frt. alld lb. .14¼- —
tanks, frt. alld lb. .11¼- —
dms., c.l., frt. alld lb. .13½- —
l.c.l., frt. alld lb. .14½- —
tanks, frt. alld lb. .11½- —
syn., 85-88%, dms., c.l., dlvd lb. .13 • —
l.c.l., dlvd lb. .14 • —
tanks, dlvd lb. .11 • —
95-98%, dms., c.l., dlvd lb. .13¼- —
l.c.l., dlvd lb. .14¼- —
tanks, dlvd lb. .11¼- —
99%, dms., c.l., dlvd lb. .13½- —
l.c.l., dlvd lb. .14½- —
tanks, dlvd lb. .11½- —
Acetoacetate, dms., c.l., dlvd lb. .58 • —
l.c.l., dlvd lb. .59 • —
tanks, dlvd lb. .56 • —
Acrylate, dms., c.l., t.l., dlvd lb. .41½- —
l.t.l., dlvd lb. .41½- —
tanks, dlvd lb. .38¾- —
Aminobenzoate, USP (see Benzocaine).
Bromide, tech., 98%, dms., c.l., frt. alld. E lb. .41 • —
l.c.l., frt. alld E lb. .43 • —
Butyl ketone, dms., c.l., works lb. .35½- —
l.c.l., works lb. .36 • —
tanks, works lb. .34 • —
Butyrate, works lb. .80 • 1.03
Carbamate (see Urethane).
Cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, works lb. .70 • —
smaller lots, works lb. .72 • .80
vis., 10, 20, 50, 100, 150 cps., bgs., 2,000-lb. lots or more, works lb. .65 • .70
smaller lots, works lb. .67 • .81
Chloride, tech., cyl., works lb. .20 • .22
dms., works lb. .18 • .20
tanks, works lb. .10 —
Cinnamate, cns. lb. 2.71 3.45

HOW HERCULES HELPS...

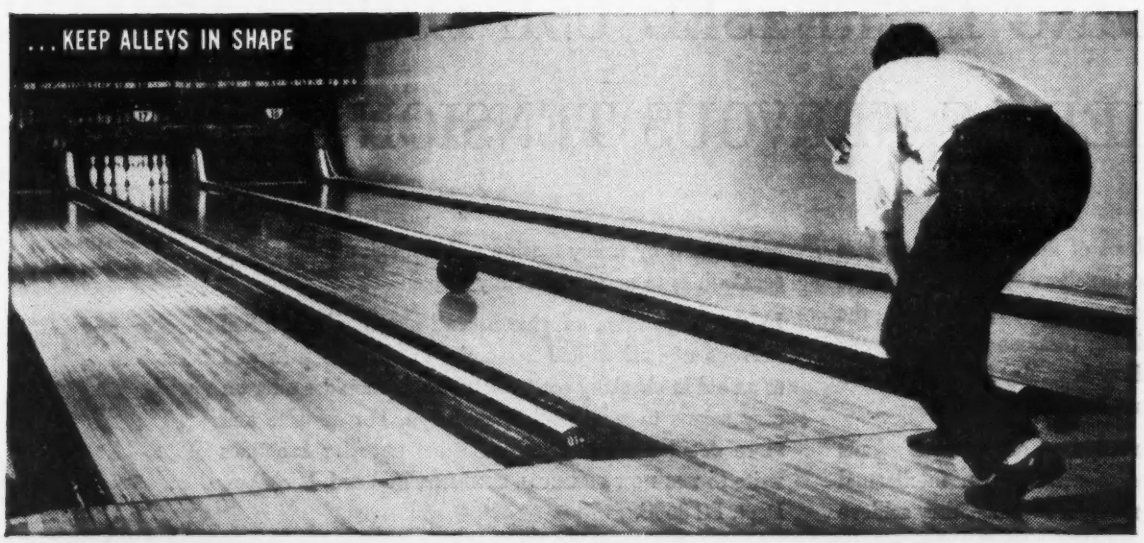


THE BACK COUNTS, TOO, in the manufacture of carpets. Hercules Dresinol® solvent-free resin dispersions used in conjunction with latex, starch and pigments, provide durable backings for popular-priced carpets. Dresinol furnishes either flexibility or stiffness; adds body to the carpet and improves adhesion of the backing for all types of cotton, wool and mixed fiber carpets.



NEW ANTHRACITE-BURNING BOILERS, clean and compact, make playrooms of basements the year round; even remove ashes automatically. Mining the millions of tons of anthracite used annually for residential, commercial and industrial uses would be impossible without explosives. For more than forty years, Hercules has pioneered in blasting techniques and equipment to increase the efficient and safe use of explosives in mining, quarrying, construction, and farming.

AIMING FOR THE "POCKET", this bowler wants the alley he uses highly polished and free of "ruts". That's why bowling alley surfaces are protected with nitrocellulose lacquer to keep them in top condition. The fastest drying protective coating known, lacquer makes it possible to put an alley back in play within hours after it has been refinished. This same tough finish protects bowling pins and other sports equipment.



HERCULES
CHEMICAL MATERIALS FOR INDUSTRY

HERCULES POWDER COMPANY
INCORPORATED
936 Market St., Wilmington 99, Del. Sales Offices in Principal Cities
SYNTHETIC RESINS, CELLULOSE PRODUCTS, CHEMICAL COTTON, TERPENE CHEMICALS, ROSIN AND ROSIN DERIVATIVES, CHLORINATED PRODUCTS, EXPLOSIVES, AND OTHER CHEMICAL PROCESSING MATERIALS

488-4

Ethyl ethanolamines, mixed, dms., c.l., frt. alld., E. Miss. lb. .42½- —
l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40½- —
indust., dms., c.l., dlvd. E lb. .12 - —
l.c.l., dlvd. E lb. .13 - —
tanks, dlvd. E lb. .10 - —
Ether, absolute, ACS, dms lb. .27 - —
anesthesia, USP, hospitals, 1-lb. cns lb. .89 - —
½-lb. cns lb. .97 - —
¼-lb. cns lb. 1.05 - —
indust., dms., c.l., dlvd. E lb. .12 - —
l.c.l., dlvd. E lb. .13 - —
tanks, dlvd. E lb. .10 - —
Gallate, dms., 100 to 2,000-lb. lots. lb. 3.90 - 4.40
Iodide, cbys., works lb 3.30 - —
Methacrylate, dms., c.l., and less than truckload, works, frt. equald. lb. .51½- .52
Morphine hydrochloride, USP, bots oz. 11.85 - —
Nitrite (see Nitrous ether).
Oenanthate, dms. lb. 1.00 - 1.50
Oleate, dms., l.c.l., works lb. No prices.
Oxalate (see Diethyl oxalate).
Silicate dist. (see Tetraethylorthosilicate)
40% available SiO_2, dms., dlvd. lb. .53½- —
N-Ethyl-a-naphthylamine dms., works, lb. 1.02 - —
N-Ethyl-o-toluidine, bbls lb. .88 - —
Ethylamine (see Mono, Di- or Tri-)
N Ethylaniline, dms., c.l., frt. alld. lb. .51 - —
l.c.l., frt. alld lb. .52 - —
tanks, frt. alld lb. .50 - —
Ethylbenzene, 99%, dms., c.l. lb. .19½- .20¼
l.c.l. lb. .20½- .21¼
tanks lb. .18½- —
Ethylene dichloride, dms., c.l., dlvd lb. .10¼- —
l.c.l., same basis lb. .12¼- —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies 1c per lb higher.
Glycol, indust., dms., c.l., dlvd. E lb. .14¾- —
l.c.l., same basis lb. .15¾- —
tanks, same basis lb. .13 —
Monobutyl ether, dms., c.l., dlvd. E lb. .21½- —
l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .19½- —
Monoethyl ether, dms., c.l., dlvd. E lb. .20½- —
l.c.l., dlvd. E lb. .21½- —
tanks, dlvd E lb. .18½- —
Acetate, dms., c.l., dlvd. E lb. .18½- —
l.c.l. dlvd. E lb. .19½- —
tanks, dlvd. E lb. .16½- —
Monomethyl ether dms., c.l., dlvd. E lb. .20½- —
l.c.l., dlvd. E lb. .21½- —
tanks, dlvd E lb. .18½- —
Acetate, dms., c.l., dlvd. E lb. .28¾- —
l.c.l., dlvd. E lb. .29¼- —
tanks, dlvd. E lb. .27 - —
Monostearate, triple pressed, dms lb. .34 - —
Oxide, dms., c.l., dlvd. E lb. .21 - —
l.c.l., dlvd. E lb. .24 - —
tanks, dlvd. E lb. .15 - —
Trichloride (see Trichloroethane).
Ethylenediamine 85-88%, dms., c.l., dlvd. E., 100% basis lb. .46 - —
l.c.l., dlvd. E., 100% basis lb. .47 - —
tanks, dlvd. E., 100% basis lb. 44 - —
Ethylvanillin, cns., 25-lb. lots lb. 6.75 - 7.30
smaller lots lb 7.35 - 7.40
Eucalyptol, USP, cns., dms lb 1.40 - 1.50
Eugenol, USP, bots. lb. 2.70 - 3.55
Euphorbia herb, bls lb. .15 - .17

F

Feldspar, 140-200 mesh, bulk, c.l., works ton. 19.50 - —
Feldspar in bags $3 per ton higher
Fennel seed, Argentine, bgs lb. .17 - —
Czech, medium, bgs lb. .12 - .12½
Indian, light, bgs lb. .12 - .12¼
Fenugreek seed, Moroccan, bgs. lb. .10½- —
Ferric acetate, liquor, 28°, bbls., c.l., works lb. .09 - —
l.c.l., works lb. .09¾- —
soln., USP IX, cbys. lb. .16 - —
djns. lb. .17 - —
Cacodylate, NF, bots lb. 13.00 -14.00
Chloride, anhyd., tech., dms., c.l., works 100 lbs. 6.75 - —
l.c.l., works 100 lbs. 8.00 - —
indust., cryst., bbls., c.l., works. 100 lbs. 4.75 - 5.25
l.c.l., works 100 lbs. 5.75 - 6.25
42° Be, cbys., c.l., works. 100 lbs. 7.25 - 8.25
tanks, frt. equald, 100% basis 100 lbs. 3.25 - —
USP cryst., dms., works lb. .07¼- .09
Citrate, gran., dms. lb. .86 - —
Glycerophosphate NF, powd lb. 4.75 - 4.85
Hydrophosphite, NF, dms lb. 3.45 - —
Naphthenate liq., 6% Fe., dms., frt. alld lb. .25¾- —
Oxalate, gran., dms lb. .85 - .87
Phosphate, NF, soluble, gran., pearls cs lb. .64 - .65
Pyrophosphate, NF VII, soluble, gran., pearls, dms lb. .78 - .81
Resinate, 6¾% Fe, dms., frt. alld. lb. .29½- —
Stearate, dms., c.l., frt. alld. lb. .37 - —
l.c.l., frt. alld lb. .38 - .43
Sulfate, partially hydrated, bgs., c.l., works ton. 31.75 -33.75
l.c.l., works ton. 34.75 -40.75
Ferric-ammonium citrate, brown, NF, gran., dms lb. .56 - .59
green USP XII, gran., dms lb. .56 - .59
Oxalate, fine gran., dms lb. .25½- .28⅛
Ferric-potassium, oxalate, fine gran., dms lb. .30½- .33⅛
Ferric-sodium oxalate, fine gran., dms lb. .25½- .28⅛
Ferrous gluconate, NF, dms lb. .88 - —
Sulfate, gran., bgs., c.l., works. ton. 34.50 - —
l.c.l., dlvd. Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ton. 40.00 - —
bulk, c.l., works ton. 27.00 - —
USP cryst., bbls., dms lb. .09½- .10
Fir balsam, Canada, cns gal. 32.00 - —
Oregon, bbls gal. 4.00 - —
Fishliver oil (see Oil fishliver).
Fishmeal, menhaden, ground, dom., 60% protein, bags, Balto area ton. 148.00 Nom.
Fishscrap, menhaden, dried, 60% protein, bgs., Balto area ton. 143.00 Nom.
Formaldehyde, NF, 37%, (inhibited), Zone 1, dms., c.l., dlvd. lb. .0625- —
l.c.l., dlvd lb. .067 - —
tanks, dlvd lb. .0375- —
Zone 2, dms., c.l., dlvd lb. .063 - .066
tanks, dlvd lb. .0405- —
methanol-free (uninhibited), Zone 1, tanks, dlvd. lb. .035 - —
Zone 2, tanks, dlvd lb. .0375- —
Fleaseed (see Psyllium seed).
Fringetree bark, bls lb. .60 - .61

Fuller's earth, bgs., c.l., Ill. mines. ton. 19.00 - —
powd., insecticide grade, dried, bgs., c.l., Ga. or Fla. mines ton. 17.50 - —
calcined, bgs., c.l., same basis ton. 20.00 -21.75
oil-bleaching grade, 100-mesh, bgs., c.l., same basis ton. 16.50 -17.00
200-mesh, bgs., c.l., same basis ton. 17.50 -18.00
spent, bgs., c.l., shipt. point ton. 4.50 - 5.00
Furfural, dms., c.l., works lb. .13 - —
l.c.l., works lb. .14 - —
tanks, dlvd. E lb. .12 - —
dlvd. W lb. .13 - —
Fusel oil, refd., dms., c.l., dlvd lb. .22 - —
l.c.l., dlvd. lb. .23 - —
tanks, dlvd. lb. .20 - —
Fustic extract, cryst., No. 1, bbls., l.c.l lb. .47½- —
No. 2, bbls., c.l. lb. .45½- —
No 3, bbls c.l lb. .43½- —
liq., No. 1, bbls., l.c.l. lb. .22½- —
No. 2, bbls c.l lb. .21½- —
No 3, bbls l.c.l lb. .19 - —
solid, No. 1, bxs., l.c.l. lb. .45 - —

G

G salt, 100% basis, bbls. frt alld lb. .73 - —
Gammapicoline (see g-Picoline).
Gelatin, edible, pure (pork skin), 75 Bloom test, bbl., c.l. lb. .53 - —
150 Bloom test, bbl., c.l. lb. .64 - —
200 Bloom test, bbl., c.l. lb. .71 - —
225 Bloom test, bbl., c.l. lb. .74 - —
275 Bloom test, bbl., c.l. lb. .81 - —
Gelsemium root, bls lb. .23 - .24
Gentian root, bls lb. .17 - .20
grd., bbls., bxs lb. .22 - .23
powd., bbls., bxs lb. .23 - .24
Geraniol, extra, cns., dms lb. 3.90 - —
standard, cns., dms lb. 3.65 - —
Geranyl acetate, cns lb. 3.90 - —
Ginger oleoresin, NF, from African root, bots lb. 4.00 - 7.75
from Jamaican root, bots lb. 6.00 -10.25
Root, African, bls lb. .35 - —
Jamaica, No. 1, bgs lb. No prices.
No. 2, bgs lb. .44 - —
No. 3, bgs lb. .43 - —
Nigerian, split, bgs lb. .30 - .31
Glauber's salt, anhyd (see Sodium sulfate).
Glue, bone, extracted, 86 jellygrams, bgs., c.l., dlvd. lb. .15 - —
104 jellygrams, same basis lb. .17 - —
131 jellygrams, same basis lb. .18 - —
164 jellygrams, same basis lb. .20½- —
191 jellygrams, same basis lb. .21 - —
222 jellygrams, same basis lb. .22 - —
packers' 40 jellygrams, bgs., c.l., dlvd lb. .14 - —
65 jellygrams, same basis lb. .14½- —
86 jellygrams, same basis lb. .15 - —
115 jellygrams, same basis lb. .15½- —
135 jellygrams, same basis lb. .18½- —
164 jellygrams, same basis lb. .19½- —
renderers' 115 jellygrams, bgs., c.l., dlvd lb. .15 - —
Bone glue, l.c.l., prices 1c. higher.
Hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .15 - —
95-121, bgs., c.l., dlvd lb. .16 - —
122-149, bgs., c.l., dlvd lb. .18½- —
150-177, bgs., c.l., dlvd lb. .21 - —
178-206, bgs., c.l., dlvd lb. .23½- —
207-236, bgs., c.l., dlvd lb. .26 - —
237-266, bgs., c.l., dlvd lb. .28 - —
267-298, bgs., c.l., dlvd lb. .30 - —
299-330, bgs., c.l., dlvd lb. .32 - —
331-362, bgs., c.l., dlvd lb. .34 - —

Ethyl Ethanolamines—Glyoxal

Glue, hide, 363-394 jellygrams, bgs., c.l., dlvd. lb. .36 - —
395-427 bgs., c.l., dlvd lb. .38 - —
428-460, bgs., c.l., dlvd lb. .39 - —
461-494, bgs., c.l., dlvd lb. .40 - —
495-529, bgs., c.l., dvld lb. .41 - —
Hide glue l.c.l. prices 1c. higher.
Glycerine, nat., crude, saponification, 88%, to refineries, tanks, works lb. .23 - .23¼
soaplye, 80%, tanks, works lb .21 Nom.
refd., BP, 98%, dms., c.l., dlvd. lb. .30½- —
l.c.l., dlvd lb. .31 - —
tanks, dlvd lb. .30 - —
dynamite, dms., c.l., dlvd lb. .30½- —
l.c.l., dlvd lb. .31 - —
tanks, dlvd lb. .30 - —
high gravity, dms., c.l., dlvd. lb. .30½- —
l.c.l., dlvd lb. .31 - —
tanks, dlvd lb. .30 - —
USP, CP, 95%, dms., c.l., dlvd. lb. .29½- —
l.c.l., dlvd lb. .30 - —
tanks, dlvd lb. .29 - —
yellow, distilled, dms., c.l., dlvd lb. .30 - —
l.c.l., dlvd lb. .30½- —
syn., dms., c.l., dlvd lb. .30½- —
l.c.l., dlvd lb. .31 - —
tanks, dlvd lb. .30 - —
Glycine (see Acid aminoacetic).
Glycerol (see Glycerine).
Glyoxal, 30%, dms., c.l., works lb. .18½- —
l.c.l., works lb. .19 - —
tanks, works lb. .18 - —

This 17th Century Gauntlet typifies the skillful craftsmanship of medieval armormakers. The expert positioning and attachment of adjacent parts permit all the necessary flexibility. The intricate carving and embossment give it a distinct, attractive appearance. And the careful design and workmanship assure the maximum protection. In battle and in jousts, combatants had to depend on the armorer's skill . . . often for their lives.

J&L Steel Containers offer dependable protection for your products. They're built of sturdy, high-quality J&L Steel Sheet. Their careful construction insures perfect fit of all joints and movable parts. And they have a trim appearance which can be attractively decorated with colorful designs and illustrations by J&L's accurate lithographic process.

In addition, coatings and lacquers are evenly applied—both inside and outside; and J&L pails and drums are chemically treated to keep all surfaces clean and dry.

For the protection your products need, depend on J&L Steel Containers. You can order them through plants in leading industrial centers, and you'll find J&L service prompt and efficient.

Jones & Laughlin
STEEL CORPORATION
405 LEXINGTON AVE.
NEW YORK 17, N.Y.
J&L STEEL

Golden Seal Root—Isobutyraldehyde

Golden seal root, NF, tested, bls. lb. 2.25 - 2.50
powd., bxs lb. 2.75 - 3.25
Graphite, amorph., powd., bgs., fib. dms., ex whse lb. .06 - .09½
crystalline, 88-90%, powd., bgs., fib. dms.. ex whse lb. .19 - .21½
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .24½
95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
flake, No. 1, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Grease, brown, tanks, dlvd lb. .05½ Nom.
house, tanks, dlvd lb. .05½ Nom.
white, choice, not all hog, tanks, dlvd lb. .08 - —
yellow, tanks, dlvd lb. .06¾ - —
Green, brilliant, thioflavin, toner, molybdated, PMA, kgs, works. lb. 5.10 - —
tungstated, PTMA, kgs., works lb. 6.00 - —
Chrome, CP, dark, light, medium, blue content 1 to 15%, bbls., dlvd. N. of Penn. and N. C., E. of Miss., including St. Paul, Minn., Davenport, Rock Island, St. Louis lb. .38 - —
16-30%, bbls., same basis lb. .39 - —
31-45%, bbls., same basis. lb. .40 - —
45-49%, bbls., same basis. lb. .43 - —
50%, bbls., same basis lb. .45 - —
Green, chrome, reduced color, 25%, bbls., same basis lb. .19 - —

Chrome green prices are ½c. higher, dlvd., at the following points, except as noted:—Ala., Fla., Ga., La. (Shreveport 1½c.), Miss., N. C., S. C., Tenn., Texas (Dallas, Ft. Worth, 1¼c.; El Paso, 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1c. higher dlvd. Pac. coast: for Denver, Pueblo, Salt Lake City, Wichita, prices are equalized with Chicago.

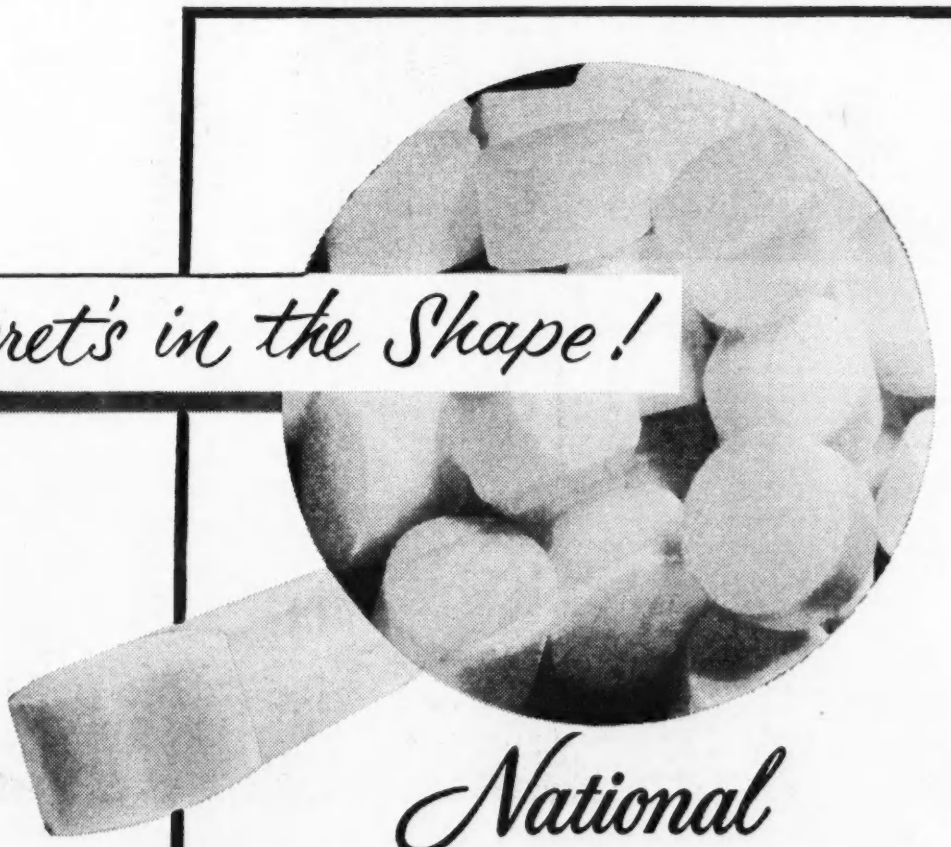
Chromium oxide, hydrated, bbls., dms., c.l., frt. alld lb. 1.00 - 1.10
pure, bgs., c.l., frt. alld lb. .59¼ - —
l.c.l., same basis lb. .39¾ - —
Dyes (see Dyes, coaltar).
Malachite, straight, PTMA, bbls., works lb. 4.60 - —
Paris (see Paris green).
Phthalocyanine toner, bbls., works. lb. 3.95 - —
resinated, bbls lb. 3.50 - —
water dispersable, bbls lb. 1.71 - —
Pigment B, kegs lb. 1.35 - —
paste, kegs lb. .38 - —
Grindelia robusta herb, bls lb. .38 - .40
Guaiacol, NF, cryst., dms., tins lb 2.10 - 2.15
liq., cbys., dms lb. 2.30 - 2.40
Carbonate, NF VII, dms lb. 3.40 - 3.45
Gum, aloe (see Aloe).
Arabic, amber, sorts, bgs lb. .22 - .23
powd., USP, bbls lb. .27 - .28
Asafetida (see A).
Asphaltum (see A).
Benzoin, Sumatra, cs lb. .38 - .42
Camphor (see C).
Gum, cellulose, high vis., bgs., 23,000-lb. lots or more, works, frt. alld lb. .55 - —
smaller lots, same basis lb. .57 - —
Copal, Congo, No. 1, bgs lb. .21 - .23
No. 2, bgs lb. .18½ - .20
No. 3, bgs lb. .16½ - .18
Manila C, bgs lb. .42 - .44
CBB, bgs lb. .35 Nom.
DBB, bgs lb. .33 - .35
DK, bgs lb. .22 - .24
dust, bgs lb. .14 - .16
MA, soft, bgs lb. .24 - .26
WS, bgs lb. .34 - .36
Philippine, pale, chips, bgs. lb. .25 - .27
nubs, bgs lb. .34 - .36
seeds, bgs lb. .20 - .22
sorts, bgs lb. .22 - —
Pontianak, chips, bgs lb. .28 - —
nubs, bgs lb. .39 - .40
Dammar, Batavia, AAM, cs lb. .27 - .29
dust, bgs lb. .16½ - .17¼
E, bgs lb. .20 - .22
East India, batu, bold, bgs lb. .14 - .15½
nubs and chips, bgs lb. .08 - .09
black, bold, bgs lb. .14 - .16
unscraped, bgs lb. .11 - .13
nubs and chips, ogs lb. .11 - .13
pale, chips, bgs lb. .13½ - .14½
nubs, bgs lb. .18 - .20
Siam, cs lb. .37 - —
Singapore, No. 1, bgs lb. .43 - .45
No. 2, bbls lb. .27 - .29
No. 3, bbls lb. No stocks.
dust, bgs lb. .16½ - .17
seeds, bgs lb. .20 - .22
Ester, gum-rosin type, dms., c.l., dlvd. Ill., Ind., Ky., Mich., Mid-Atl. States, N. E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va lb. .15½ - —
wood-rosin type, dms., c.l., same basis lb. .15 - —
Gum, karaya, No. 1, NF, powd., bbls. lb. .55 - —
No. 2, powd., bbls lb. .45 - —
No. 3, powd., bbls lb. .40 - —
Locust bean, powd., bgs lb. .28 - .30
Myrrh, cs lb. .38 - .40
Opium (see O).
Olibanum siftings, cs lb. .15 - .20
tears, cs lb. .22 - .30
Rosin (see Naval Stores, Protective Coatings Market).
Sterculia (see Gum Karaya).
Tragacanth, No. 1, ribbons, cs lb. 3.00 - 3.50
No. 2, cs lb. 2.55 - 2.60
No. 3, cs lb. 1.75 - 1.80
powdered, USP, bbls lb. 1.25 - 1.35
Gypsum, plaster of paris, 100-lb. paper, bgs., trucks, dlvd. N. Y. C. ton 20.30 - —
terra alba., dom., same basis ton. 19.00 - —
works, N. Y. C. ton. 16.00 - —
imp. English, 100-lb. paper bags, ex dock, N. Y. C. ton 55.00 - —
ex warehouse ton. 60.00 - 62.00

H

Hawthorn berries, bgs lb. .28 - .32
Heliotropin, cryst., cns lb. 3.50 - 4.25
Hellebore root dom. green, bls lb. .55 - .65
Helonias root, bls lb. 1.75 - 2.00
Hematine extract, cryst., No. 1, bbls., l.c.l. lb. .47 - —
No. 2, bbls., l.c.l. lb. .43 - —
No. 3, bbls., l.c.l. lb. .41 - —
No. 4, bbls., l.c.l. lb. .39 - —
No. 5, bbls., l.c.l. lb. .37 - —
paste, No. 1, bbls., l.c.l. lb. .20½ - —
Henbane leaves, bls lb. .35 - .40
Heptane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex gal. .14¾ - —
Borger, Tex gal. .14¾ - —
Hesperidin methylphalcone, bots., works lb. 50.00 - —
Hexachlorophene, dms lb. 2.60 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or N.Y.C. lb. .222 - —
1,000-19,999-lb. lots, same basis lb. .232 - —
smaller lots, same basis lb. .242 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .239 - —
smaller lots, same basis lb. .249 - —
USP, dms., 500-lb. lots or more, same basis lb. .40½ - —
smaller lots, same basis lb. .41½ - —
1,000-19,999-lb. lots, same basis. lb. .232 - —
Hexane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex gal. .15½ - —
Borger, Tex gal. .15½ - —
1-Hexanol, dms., c.l., works lb. .34½ - —
l.c.l., works lb. .35 - —
tanks, works lb .33 - —
Hexyl cinnamic aldehyde, dms lb. 4.00 - 7.50
Salicylate, dms lb. 1.75 - —
Hexylene glycol, dms., c.l., dlvd lb. .16 - —
l.c.l., dlvd lb. .17 - —
tanks, dlvd lb. .14 - —
n-Hexyl methacrylate, dms., less than truckload, works lb. .72 - —
Hexylresorcinol, USP, dms., 50-lb. lots or more, dlvd lb. 14.00 - —
smaller lots, dlvd lb. 14.50 - —
Histamine diphosphate, USP, bots. kilo. 400.00 - —
l-Histidine hydrochloride, NF, fib. dms., 50-kilo lots, works. Kilo 80.00 -85.00
1-5 kilo lots, works kilo. 90.00 -95.00
Homatropine hydrobromide, USP, bots oz. 8.50 - —
Methylbromide, USP, bots oz. 5.65 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton. 6.75 - —
Horehound herb, bls lb. .16 - .19
Hyoscine salts (see Scopolamine).
Hydrastine bots oz. 29.50 -31.00
Hydrochloride, NF, bots oz. 29.50 -31.00
Sulfate, bots oz. 35.00 -37.00
Hydrastinine, 10-grain bots bot. 1.95 - —
Hydrastis (see Goldenseal).
Hydrazine, free base, ret. dms., Lake Charles, La lb. 3.00 - 3.30
Hydrate, 100%, ret. dms., Lake Charles, La lb. 1.60 - 1.90
85%, ret. dms., same basis lb. 1.35 - 1.55
Hydrocortisone acetate, bulk, bots., dms. gram. 6.00 - —
alcohol, bulk, bots., dms. gram. 6.00 - —
Hydrofuramide, dms., fib. ctns., works lb .30 - .40
Hydrogen chloride, anhyd., 50-lb. cyls., c.l., works lb. .45 - —
l.c.l., works lb. .55 - .60
Fluoride anhyd., cyls., dlvd. E lb. .30½ - .32¼
dlvd. W lb. .39 - —
tanks, works lb. .21 - —
Peroxide, USP, bbls., dlvd lb. .03¾ - .05
35%, dms., c.l., dlvd lb. .202 - —
l.c.l., dlvd. lb. .211 - —
tanks, dlvd. lb. .1800 - —
Hydroquinone photo grade bbls. dms. lb. .88 - 1.00
tech., dms., c.l., dlvd lb. .77½ - —
l.c.l., same basis lb. .79½ - —
Hydroxycitronellal, cns lb. 5.10 6.00
Hyoscyamine, bots oz. 15.75 -16.00
Hydrobromide, bots oz. 11.00 -12.00
Sulfate, bots oz. 10.50 -11.50
Hypernic extract, cryst., No. 2, bbls., l.c.l. lb. .52 - —
liq., No. 1, bbls., l.c.l. lb. .35 - —
No. 2, bbls., l.c.l. lb. .27 - —

I

Ichthammol, NF, dms lb. .60 - .75
Indian red (see Red, Indian).
Indigo (see Dyes, coaltar, 1171 Indigo synthetic).
Indole, CP, bots lb. 17.00 -21.00
Inositol, bots., dlvd lb. 5.00 - —
dms., dlvd lb. 4.50 - 4.75
Insect flowers (see Pyrethrum).
Iodine, crude, kgs lb. 1.45 - —
resub, USP, dms., jars lb. 2.55 - 2.57
Iodochlorohydroxyquinolin, USP, dms lb. 5.90 - —
Iodoform, NF, dms., kgs lb. 4.90 - 5.00
a-Ionone, cns lb. 7.15 - 8.10
b-Ionone, cns lb. 6.80 -11.25
Methyl (see under M)
Ipecac root, bgs lb. 9.00 - —
powd., bbls., bxs lb. 10.00 -10.25
Irish moss, bleached, prime, bls lb. .30 - .35
Iron Compounds (see Ferric or Ferrous).
Isoborneol, cns lb. 1.25 - 1.70
Isobornyl acetate, cns lb. .62 - .95
formate, dms. lb. .80 - —
Propionate, dms lb. 1.15 - 1.45
Isobutyl acetate, perfume grade, cns lb. .75 - 1.00
solvent grade, dms., c.l., dlvd E. of Rockies lb. .13¼ - —
l.c.l., same basis lb. .14¼ - —
tanks, same basis lb. .11¼ - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½ - —
l.c.l., dlvd lb. .28½ - —
tech., dms., c.l., dlvd lb. .21½ - —
l.c.l., dlvd lb. .22½ - —
tanks, dlvd lb. .19½ - —



Secret's in the Shape!

National
MALEIC ANHYDRIDE
TABLETS

up to 75-90% fewer fines because of smooth "cornerless contour" and lower surface-area/weight

"As Delivered" National Maleic Anhydride Tablets are easy to handle, uniform and quick to dissolve. That's why they will appeal to your operators.

Economical, too, in minimizing inventory because our modern new plant on the Ohio River at Moundsville, W. Va. can deliver so promptly by rail, truck or inland waterway. All of which are good reasons for specifying "National Maleic Anhydride Tablets" on your next order. Phone our nearest office for samples, specifications and prices.

NATIONAL ANILINE DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 RECTOR STREET, NEW YORK 6, N. Y.

Boston Providence Philadelphia Chicago San Francisco
Portland, Ore. Greensboro Charlotte Richmond Atlanta
Los Angeles Columbus, Ga. New Orleans Chattanooga Toronto

Isoeugenol, cns ..... lb. 3.45 - 4.25
Isoniazid, powd., bulk, 25-kilo lots or more ..... kilo. 23.00 - 25.50
smaller lots ..... kilo. 24.00 - 26.00
Isopentane, coml. grade, tanks, f.o.b. Tex. refy ..... gal. .15½ - —
Isonicotinic acid hydrazide, (see Isoniazid).
Isophorone, dms., c.l., works ..... lb. .24¼ - —
l.c.l., works ..... lb. .24¾ - —
tanks, works ..... lb .22½ - —
Isopropanol (see Alcohol, isopropyl).
Isopropyl acetate, dms., c.l., dvld. ..... lb. .12 - —
l.c.l. same basis ..... lb. .13 - —
tanks, same basis ..... lb. .10 - —
Alcohol (see Alcohol, isopropyl).
Isopropyl benzene (see Cumene).
Ether, dms., c.l., dvd ..... lb. .07 - —
l.c.l. dlvd ..... lb. .08 - —
tanks, dlvd ..... lb .05 - —
Isopropyl-N-(3-chlorophenyl) carbamate, 70% CIPC in xylol, dms., c.l., t.l., works lb. .70 - —
l.c.l., works ..... lb. .714 - .814
Isopropyl-N-phenyl carbamate, 450-lb. fib dms., c.l., t.l., works. lb. .75 - —
l.c.l., works ..... lb. .80 - .90
Isopropylamine (see Mono, Di, or Tri-).
Isoquinoline, dms., works ..... lb. .65 - 1.25

J

Jalap root, NF, bls ..... lb. .38 - .55
powd., bbls., bxs ..... lb. .49 - .66
Juniper berries, bgs ..... lb. .18 - .20
Tar, NF, dms ..... lb. .42 - .60

K

Kaolin (see also Clay, China), NF, powd., fib. dms. ..... lb. .10 - .12
colloidal, fib., dms. ..... lb. .15½ - .17½
Kola nuts, bgs ..... lb. .15 - —

L

Lactose, crude, bgs., c.l., works lb. .15 - —
edible, fib. dms., 30,000-lb. lots, works lb. .22 - —
2,000-lb. lots, works ..... lb. .22¾ - —
200-1,800-lb. lots, works ..... lb. .23¼ - —
Edible lactose in bgs., 1c. lower.
USP, fib. dms., 30,000-lb. lots, works lb. .24 - —
2,000-lb lots, works ..... lb. .24¾ - —
200-1,800-lb. lots, works ..... lb. .25¼ - —
USP lactose in ogs., 1c. lower.
Lady's slipper root, bls ..... lb. 1.70 - 1.75
Lanolin, cosmetic, dms., works lb. .28 - .30
USP, anhyd., dms., works ..... lb. .26 - .28
hydrous, dms., works ..... lb. .25 - .27
Lard, cash, dms., Chicago ..... lb. .12⅞ - —
Larkspur seed, ogs ..... lb. .20 - .23
Laurel leaves, Greek, bls. ..... lb. .14 - —
Portuguese, bls. ..... lb. .13 - —
Turkish, bls. ..... lb. .22 - —
n-Lauryl chloride, dist., dms., c.l., works, frt. equaid lb. .74 - —
l.c.l. same basis ..... lb .75 - —
Methacrylate, dms., c.l., or t.l., works lb. .65½ - —
Lavender flowers, medium, bls lb. .55 - .60
ord., bls ..... lb. .16 - .20
select., bls ..... lb. .90 - —
Lead acetate, white, cryst., bbls lb. .22 - —
gran., bbls ..... lb. .23 - —
powd., bbls ..... lb. .23 - —
NF cryst., gran., powd lb. .31 - .32
Arsenate, acid powder, dealers, 3-lb. bgs, or larger, c.l., frt. alld. on 96 lbs. or more lb. .27½ - —
l.c.l., trt. alld ..... lb. .28½ - —
1-lb bgs., c.l. ..... lb. .41½ - —
l.c.l. ..... lb. .42½ - —
Blue, basic sulfate, bbls., c.l., shipt. point, frt. alld lb. .15¾ - —
l.c.l., same basis ..... lb. .16¾ - —
Carbonate (see Lead, white).
Chloride, dms. ..... lb. .45 - —
Iodide, NF, V jars ..... lb. 3.82 - —
Linoleate, fused, 26-28% Pb, dms. lb. .33 - —
Metal, pigs, prime, N. Y. ..... lb. .15 - —
St. Louis ..... lb. .1480 - —
40,000-lb. lots, works lb. .33¾ - —
Metallic paste, dms., 20,000-10,000-20,000-lb. lots, same basis, lb. .34¾ - —
2,000-10,000-lb. lots, same basis lb. .35¼ - —
200-2,000-lb. lots, same basis, lb. .35¾ - —
Prices ex wnse. Jersey City, N. J. 4½c per lb. higher.
Monosilicate, bgs., c.l., works, frt. equald lb. .1580 - —
l.c.l. same basis ..... lb. .1630 - —
Naphthenate, liq., 16% Pb. dms., dlvd lb. .17 - —
24% Pb., dms., dlvd ..... lb. .21 - —
solid, 37% Pb., dms., dlvd ..... lb. .27½ - —
Nitrate, bbls ..... lb. .22¼ - —
Orthosilicate-silica gel, 50-60% PbO, dms., works lb. .29¾ - .34¼
Peroxide, tech., powd., bbls ..... lb. .38¾ - .80¼
Phthalate, dibasic, dms., works lb. .41 - —
Red, 95% Pb_3O_4, or less bbls., l.c.l., same basis ..... lb. .18 - —
l.c.l., same basis ..... lb. .18 - —
97% Pb_3O_4, bbls., c.l., same basis lb. .17¾ - —
l.c.l., same basis ..... lb. .18 - —
98% Pb_3O_4, bbls., c.l., same basis lb. .18 - —
l.c.l., same basis ..... lb. .18½ - —
Resinate, precip., 23% Pb, dms., dlvd. lb. .32½ - —
Salicylate, normal, dms., works lb. .46 - —
Sulfate (see Lead, blue, basic sulfate, Lead, white, basic sulfate).
Tallate, liquid, 16% Pb., dms. lb. .15 - —
24% Pb., dms ..... lb. .18½ - —
solid, 30% ..... lb. .23¼ - —
White, basic carbonate, bgs., c.l., shipt. point, frt. alld. lb. .17½ - —
l.c.l., same basis ..... lb. .18½ - —
silicate, bgs., c.l., shipt. point, frt. alld. lb. .16 - .19¼
l.c.l., same basis ..... lb. .17 - .20¼
sulfate, bgs., c.l., shipt. point, frt. alld. lb. .15¾ - —
l.c.l., same basis ..... lb. .16¾ - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works lb. .15 - .17
l.c.l., same basis ..... lb. .15½ - .17½
unbleached, non-ret., dms., c.l., same basis lb. .13 - .15
l.c.l., same basis ..... lb. .14½ - .16½
dl-Leucine, dms., works ..... lb. 12.25 - 15.00
Licorice root, whole, bbls ..... lb. .10 - .12
gran., bbls ..... lb. .15 - .17
powd., bbls ..... lb. .12 - .15
Lignosulfonate, 70% tannin, bgs., c.l., works lb. .06½ - —
l.c.l., works ..... lb. .06¾ - —

Lime, agricultural, bulk, works ton. 14.50 - —
Chemical (quicklime) lump, pebble, bulk, Adams Mass. ton. 12.50 - —
Annville, Pa ..... ton. 11.50 - —
Bellefonte, Pa ..... ton. 11.50 - —
Buffalo, N. Y ..... ton. 14.00 - —
Cedar Hollow, Pa ..... ton. 11.50 - —
El Paso, Texas ..... ton. 16.75 - —
Farnams, Mass ..... ton. 14.00 - —
Gibsonburg, Ohio ..... ton. 12.50 - —
Hannibal, Mo. ..... ton. 13.50 - —
Keystone, Ala ..... ton. 10.25 - —
Kimballton, Va ..... ton. 10.25 - —
Knoxville, Tenn ..... ton. 10.50 - —
Lee, Mass ..... ton. 12.50 - —
Lewisburg, Ohio ..... ton. 10.00 - —
Limedale, Ark. ..... ton. 11.00 - —
Los Angeles, Cal ..... ton. 25.10 - 26.84
Marble Cliff, Ohio ..... ton. 10.00 - —
Martinsburg, W. Va ..... ton. 11.00 - —
McNeil, Tex ..... ton. 11.00 - —
Mosher, Mo ..... ton. 11.25 - —
Nelson, Ariz ..... ton. 14.50 - 23.65
Quincy, Ill ..... ton. 10.00 - 13.00
Reddick, Fla ..... ton. 13.50 - —
Scotrock, Ala ..... ton. 10.25 - —
Springfield, Mo ..... ton. 11.25 - —
Winooski, Vt ..... ton. 15.50 - —
Woodville, Ohio ..... ton. 11.50 - —
York, Pa ..... ton. 15.50 - —
Hydrated, paper bgs., Adams, Mass. ton. 15.50 - —
Annville, Pa ..... ton. 14.50 - —
Bellefonte, Pa ..... ton. 14.50 - —
Buffalo, N. Y ..... ton. 16.00 - —
Cedar Hollow, Pa ..... ton. 14.50 - —
Chicago, Ill ..... ton. 15.00 - —
Duluth, Minn ..... ton. 15.00 - —
Farnams, Mass ..... ton. 14.00 - —
Gibsonburg, Ohio ..... ton. 16.50 - —
Hannibal, Mo. ..... ton. 13.50 - —
Keystone, Ala ..... ton. 13.50 - —
Kimballton, Va ..... ton. 13.50 - —
Knoxville, Tenn ..... ton. 13.00 - —
Lime, hydrated, paper bgs., Lee, Mass ton. 15.50 - —
Lewisburg, Ohio ..... ton. 14.00 - —
Limedale, Ark ..... ton. 13.50 - —
Marble Cliff, Ohio ..... ton. 13.50 - —
McNeil, Tex ..... ton. 14.50 - —
Meneminee, Mich ..... ton. 14.00 - —
Mosher, Mo ..... ton. 13.50 - —
North Tazewell, Va ton. 12.75 - —
Quincy, Ill ..... ton. 10.00 - 12.00
Reddick, Fla. ..... ton. 16.00 - —
Scotrock, Ala ..... ton. 13.50 - —
Springfield, Mo ..... ton. 13.50 - —
Winooski, Vt ..... ton. 15.50 - —
Woodville, Ohio ..... ton. 14.50 - —
York, Pa ..... ton. 14.50 - —
Spray, paper bgs., Adams, Mass. ton. 17.00 - —
Annville, Pa ..... ton. 17.00 - —
Bellefonte, Pa ..... ton. 17.50 - —
Carey, Ohio ..... ton. 11.00 - —
Duluth, Minn ..... ton. 17.50 - —
Engle, W. Va ..... ton. 14.50 - —
Farnams, Mass ..... ton. 14.00 - —
Gibsonburg, Ohio ..... ton. 16.50 - —
Keystone, Ala ..... ton. 13.50 - —
Kimballton, Va ..... ton. 13.50 - —
Lee Mass. ..... ton. 17.00 - —
Lewisburg, Ohio ..... ton. 16.00 - —
Marble Cliff, Ohio ..... ton. 16.00 - —
McNeil, Tex ..... ton. 14.50 - —
Meneminee, Mich ..... ton. 14.00 - —
Mosher, Mo ..... ton. 13.50 - —
North Tazewell, Va ton. 12.75 - —
Reddick, Fla ..... ton. 16.00 - —
Rockland, Me ..... ton. 10.00 - —
Springfield, Mo ..... ton. 13.50 - —
Scotrock, Ala ..... ton. 13.50 - —
Winooski, Vt ..... ton. 17.00 - —
Woodville, Ohio ..... ton. 16.50 - —
York, Pa ..... ton. 15.50 - —

Lime salts (see Calcium).
Lime-ammonium nitrogen 20.5% N (see Ammonium nitrate with dolomite).
Limestone, grd., bgs., works ton. 3.50 - 4.00
Linalool, ex bois de rose oil, dms. lb. 7.35 - 7.65
ex lignaloe wood oil, dms ..... lb. 5.30 - 7.10
Linalyl acetate, ex bois de rose, 90-92%, dms lb. 6.75 - 7.05
96-98% dms lb 6.75 7.15
ex petitgrain bots lb 3.90 5.25
Lindane, 25% formulation, dealers, dms., works lb 1.58 - —
99% tech, dealers dms. dlvd., lb 3.10 - —
Linden flowers with leaves, bls lb. .30 - —
without leaves, bls lb. .35 - —
Linseed meal expelled, 32-34% bulk Midwest, mills ton. 62.00 - 63.00
extracted 36% bulk same basis, ton. 55.00 - 56.00
Litharge, coml., powd. bbls., c.l., works, frt. equald lb. .16½ - —
l.c.l., same basis lb. .17 - —
Lithium benzoate, dms lb 1.65 1.67
Bromide, NF, dms., works, frt. equald lb. 2.16 - —
Carbonate, NF, dms., c.l., works, or dlvd lb. 1.42½ - —
l.c.l., same basis lb. 1.43½ - 1.48½
tech., c.l., dms., works or dlvd. lb. .90 - —
l.c.l., same basis lb. .95 1.13
Chloride, CP, anhyd., ton lots lb. 1.28½ - —
tech., cryst., dms lb 1.10 1.25
Citrate, NF, dms lb. 1.60 1.64
Fluoride, bbls., 10,000-lb. lots, dlvd. lb. 2.17½ - —
ton lots, dlvd lb 2.18½ - —
less ton lots, dlvd lb 2.23½ - —
Hydride, powd., dms., works lb. 5.00 - —

A new major organic chemical

Oronite

ISOPHTHALIC

greatly improves quality of surface coatings and polyester resins

Household and Industrial Paints, Varnishes, Enamels, Polyesters will all benefit from superior properties contributed by new Oronite Isophthalic.

During the past five years Oronite Isophthalic, produced from a pilot plant, has been thoroughly field tested by a number of major resin producers with outstanding results. Paints and varnishes have shown improved qualities of durability, hardness, water resistance and quicker drying. Tougher, stronger, more heat resistant polyesters have also been produced.

The new Oronite Isophthalic plant is now well under construction with completion date scheduled for October. It will pay you to investigate Oronite Isophthalic *now*.

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Detergent Alkane
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Detergent D-40
Detergent D-60
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Dispersant NI-W
Wetting Agents
Gas Odorants
Lube Oil Additives
Sodium Sulfonates
Purified Sulfonate
Polybutenes
Phenol
Acetone
Naphthenic Acids
Cresylic Acids
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Phthalic Anhydride
Maleic Anhydride
Para-Xylene 95%
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Lithium Hydroxide—Methyl Ethyl Ketone

Lithium hydroxide, monohydrate, dms., c.l., t.l., dlvd ... lb. .97½- —
l.c.l., 1-ton lots or more, lb. .98 - .98½
Manganite, dms., works ... lb. .95 - 1.15
Nitrate, dms., 100-lb. lots ... lb. 2.25 - —
Salicylate, dms ... lb. 1.60 - 1.70
Silicate, dms., works ... lb. 1.10 - 1.30
Sulfate, dms., 100-lb. lots ... lb. 1.45 - —
Titanate dms., works ... lb. 1.15 - 1.35
Lithopone, ord., bgs., c.l., dlvd ... lb. .07½- —
l.c.l., dlvd ... lb. .08¼- .08½
titanated (high-strength), bgs., c.l., dlvd ... lb. .10 - —
l.c.l., dlvd ... lb. .11 - —
Lithopone prices, Pacific Coast, 1c. per lb. higher.
Lobelia herb, bls ... lb. 1.25 Nom.
Lobeline sulfate, bots., works ... oz. 29.50 -33.50
Logwood extract, cryst., No 1, bbls., l.c.l ... lb. .41 - —
No 2, bbls. l.c.l ... lb. .39 - —
liq., No. 1, bbls., l.c.l ... lb. .20 - —
No 2, bbls. l.c.l ... lb. .19 - —
No 3, bbls l.c.l ... lb 18½- —
solid, No. 1, l.c.l ... lb. .35 - —
Lycopodium, cs. ... lb. 2.00 2.25
dl-Lysine hydrochloride bots kilo. 140.00 -150.00

M

Mace, Siauw, No. 1, bls. ... lb. 1.40 - —
West Indian, No. 1, bls ... lb. 1.39 - —
Magnesia, calcined, tech., bgs., ctns., works lb. .25¼ 26
Magnesia, syn. rubber grade, light, bgs., c.l., works ... lb. .29¼- —
l.c.l., works ... lb. .30 - —
extra light, works ... lb. .29¼- .30
USP, light, ctns ... lb. .35 - .36
heavy, bbls ... lb. .45 - .52
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton 82.50 - —
dead-burnt, standard grain, bulk, c.l., Chewalah, Wash ton 38.00 - —
Magnesium bromide, jars ... lb. .90 - 1.00
Carbonate, tech., bgs., c.l., frt. equald lb. .10½- —
l.c.l., frt. equald lb. .12 - .13
truckloads, frt. equald lb. .11 - —
USP, bgs., c.l., frt. equald lb. .12½- —
t.l., frt. equald ... lb. .13 - —
l.c.l., frt. equald ... lb. .14 - .15
Above prices are quoted f.o.b. works, freight equalized with metropolitan New York and competitive producing points.
Chloride anhyd., 92% flake or pebble, dms., c.l., works, lb. .12¾- —
l.c.l., same basis lb. .14 - .15
hydrous, 99% flake, bgs., c.l., works ton 50.00 - —
l.c.l., bgs ... ton 55.00 -105.00
Gluconate, dms., cns ... lb. 1.30 - 1.37
Glycerophospnate, dms., works lb. 5.40 - 5.50
Hydroxide, NF, medicinal, bgs., dms., kgs lb. .26½- .30
Metal, 99.8% ingots, cs., works lb. .28½- .297
sticks, cs., works, frt. alld. on carlots lb. .49 - —
Oxide (see Magnesia, calcined)
Peroxide, 15%, dms., works ... lb. 1.00 - 1.05
Magnesium phosphate, tribasic, NF, bbls ... lb. .75 - —
Silicate (see Talc).
Silicofluoride, bbls., works ... lb. .09 - .10
Sulfate, tech., bgs., c.l., works ... 100 lbs. 2.15 - —
l.c.l., works ... 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
l.c.l., 5,000 lbs., 1 with-drawal ... 100 lbs. 3.10 - —
smaller lots ... 100 lbs. 3.35 - —
Trisilicate, USP, dms., 5,000-lb. lots ... lb. .38 - —
1,000-lb lots ... lb. .40 - —
100-lb lots ... lb. .45 - —
Bulky and super grades of magnesium trisilicate, 7c. per lb. higher.
Malathion, dms., c.l., works ... lb. .94 - —
l.c.l., works ... lb. .96 - .98
Maleic anhydride, dms., c.l., dlvd. E ... lb. .27 - —
l.c.l., dlvd E ... lb. .28 - —
tanks, same basis ... lb. .26 - —
Prices on maleic anhydride W. of Rockies, 1½c. higher.
Mandrake root, bls ... lb. .38 - —
Manganese acetate, bbls., dlvd ... lb. .35 - —
Arsenate, bgs ... lb. .16 - —
Borate, tech., fib. dms ... lb. .25 - —
Carbonate, bbls., works ... lb. .22 - —
Chloride, anhyd., dms., works, lb. .25½- —
Dioxide, African, 84-87%, 40,000 to 99,999-lb. lots, burlap paper lined, bgs., gross for net, works ... ton 91.50 - —
paper bgs., works ... ton 88.00 - —
dms., works ... ton 94.00 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots $3 per ton higher.
Manganese gluconate, dms ... lb. 1.79 - 1.93
Glycerophosphate, NF, fib dms lb. 4.70 - 4.80
Hydrate, bbls., dlvd ... lb. .36 - —
Hypophosphite, NF, dms ... lb. 3.52 - —
Linoleate, liq., 4.35% Mn., dms. lb. .32½- —
solid, precip., 8.2% Mn. bbls. lb. .37½- —
oncarlots lb. .49 - —
Naphthenate, liq., 6% Mn., dms., frt alld lb. .27 - —
Resinate, fused, 3½% Mn, dms. lb. .24 - —
precip., 6½-7% Mn, dms lb. .28 - —
Sulfate, fertilizer grade, 65% bgs., c.l., dlvd. S. E ton 80.50 - —
l.c.l., dlvd. S. E ton 87.50 - —
Tallate, 6% dms ... lb 24 - —
Mangrove bark, E. African, 38% tannin, c.l., ex dock ton 68.50 - —
So. American 30% tannin, c.l., ex dock ton 55.00 -58.00
Mannitol, comi., fib. dms., ton-lots, works lb. .47 - —
dm. to ton lots, works lb. .50 - —
MBT (see 2-Mercaptobenzothiazole).
MBTS (see Mercaptobenzothiazyl disulfide).
Melamine, bgs., ton lots, works lb. .33 - —
500 to 2,000-lb. lots, works lb. .35½- —
smaller lots, works ... lb. .36½- —
Menadione, USP, bots. ... gr. m. .04 - .05
Menthol, nat., USP, Brazilian, cs lb. 8.85 - 9.00
syn., USP, racemic, cns lb. 3.45 - —
Menthyl salicylate, tins lb 4.00 4.25
2-Mercaptobenzothiazole, bgs., fib. dms. ton lots works frt. alld lb. .38 - —
less ton lots, same basis lb .40 - —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton-lots, works, frt. alld lb. .48 - —
less ton lots, same basis lb. .50 - —
Mercuric chloride, NF, cryst., dms., 50-lb. lots or more lb. 4.98 - —
gran. or powd., dms., 50-lb lots or more lb. 4.78 - —
Cyanide, NF VIII, powd., fib. dms. lb 6.84 - —
Iodide, red, NF, fib. dms lb 7.72 - —
Oxide, red, NF, powd., fib. dms lb. 5.99 - 6.01
yellow, tech. (see Yellow, mercury oxide).
USP, fib. dms ... lb. 6.14 - —
Mercurous chloride (see Calomel).
Iodide, yellow, NF ... lb. 7.72 - —
Mercury, ammoniated (see White precipitate, USP).
Metal, 76 lb. per flask net-flask. 317.00 -320.00
Mesityl oxide, dms., c.l., dlvd ... lb. .1350- —
l.c.l., dlvd. ... lb. .1450- —
tanks, dlvd. ... lb. .1150- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Choloraniline)
Metanitroaniline (see m-Nitroaniline)
Metanitroparatoluidine (see m-Nitro-p-toluidine).
Metaphenylenediamine (see m-Phenylenediamine)
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-tolylenediamine).
Methanol, nat., denaturing grade, tanks, frt. alld ... gal. .70 —
Prices on natural methanol W. of Miss. 3c. higher.
syn., Zone 1, dms., c.l., dlvd., or truckload min., frt. alld. gal. .45 - —
l.c.l., same basis ... gal. .51 - —
tankwagon, 2,000-4,000 gals., dlvd. Metropolitan areas. gal. .33 - —
tanks, dlvd., or 4,000 gal. min., frt. alld gal. .30 - —
4,000 gal. min., frt. equald. with Camden, N. J gal. .27½- —
Zone 2, dms., c.l., or truckload min., frt. alld., or dlvd gal. .48 - —
l.c.l., same basis ... gal. .54 - —
tankwagon, 2,000-4,000 gals. min., dlvd. Metropolitan areas gal. .36 - —
tanks, 4,000 gal., min., frt. alld. or dlvd ... gal. .33 - —
Synthetic methanol zones are:—Zone 1 is all continental U. S. E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of U. S. west of above state boundaries, comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methenamine (see Hexamethylenetretramine).
dl-Methionine, fib. dms., frt. alld. 50-lb. or more lb. 3.50 - —
feed grade, 98%, fib. dms., same basis lb. 2.65 - —
Methoxychlor, 50% wettable powder, dealers dms. cs. frt. alld lb. .61 - .64
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 lb. .20½- —
l.c.l. same basis ... lb. .21 - —
hydrogenated, non-ret. dms., c.l., dlvd, Zone 1 ... lb. .21 - —
l.c.l., same basis ... lb. .21½- —
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss, Ala., Ga., Fla., S. C. and Tenn.
Acetone, nat., dms., l.c.l., E. of Miss., frt. alld gal. .62½- —
syn., dms., c.l., frt. alld. E gal. .57 - —
l.c.l., frt. alld. E ... gal. .63 - —
tanks, frt. alld. E ... gal. .45 - —
Synthetic methyl acetone E. territory is all States East of and including Colo., Mont., N. Mex. and Wyo. West territory all states west of those four.
Acrylate, dms., c.l., t.l., dlvd lb. .43½- —
l.t.l., dlvd lb. .44½- —
tanks, dlvd ... lb. .41¾- —
Alcohol (see Methanol).
Amyl acetate, dms., c.l., dlvd. E lb. .15 - —
l.c.l., dlvd. E ... lb. .16 - —
tanks, dlvd. E ... lb. .13 - —
Ketone, dms., works ... lb. 1.05 - —
Anthranilate, cns. ... lb. 2.50 - 2.65
Benzoate, cns., dms ... lb. .53 - .65
Bromide, jobbers, cyls., various sizes, frt. alld. E lb. .47 - .61
Cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works. lb. .78 - —
2,000-lb. lots and more, same basis lb. .65 - —
smaller lots, frt. alld. on 100 lbs lb. .89 - 1.00
standard vis., 15,400 cps.), 50-lb., c.l., alld lb. .66 - —
2,000-lb. lots and more, same basis lb. .72 - —
smaller lots, frt. alld. on 100 lbs lb. .75 - .86
Chloride, indust., cyls., frt. equald. lb. .21 - —
tanks, multi-unit, same basis lb. .15 - —
single unit, same basis lb. .11½- —
refrigerator mfrs., cyls., dlvd lb. .45 - —
other consumers or service men, cyls., dlvd lb. .62 - —
Cinnamate, cns. ... lb. 1.43 - 1.80
Cyclohexanol, dms., c.l., works. lb. .35½- —
t.c.l., works ... lb. .36 - —
tanks, works ... lb. .34 - —
Ethyl ketone, dms., c.l., dlvd lb. .13 - —
t.c.l., dlvd ... lb. .14 - —
tanks, dlvd ... lb. .11 - —

RELIABLE SOURCE

magnesia compounds

From pharmaceuticals to fertilizers and building board to rubber, Magnesia compounds serve industry as fillers, extenders, adsorptive and conditioning agents, and many other uses. Michigan's brine wells are a superlative source of these useful compounds. Michigan Chemical Corporation now in its 20th year producing quality chemicals from these wells, can be depended upon to supply you with your magnesia requirements.

TYPICAL ANALYSES OF MICHIGAN MAGNESIA COMPOUNDS

	No. 1 Calcined Magnesite	No. 5 Calcined Magnesite	No. 15 Calcined Magnesite	No. 30C Light Calcined Magnesia	No. 40 Extra Lt. Calcined Magnesia	Basic Magnesium Carbonate	(NF Grade) Magnesium Hydroxide	(Tech. Grade) Magnesium Hydroxide
Bulk density, weight per cubic foot	60 lb.	28 lb.	24 lb.	8½ lb.	5 lb.	5.5 lb.	15 to 25 lb.	app. 20 lb.
Ignition loss:	0.5%	1.5%	2.5%	1.9%	3.0%	56.5%	PASSES N. F. IX SPECIFICATIONS	31.4%
Chloride (as CL):	0.08	0.1	0.2	0.25	0.25	0.2		
Analysis, ignited basis:						NOT IGNITED		NOT IGNITED
SiO_2	0.3	0.3	0.3	0.3	0.3	0.15		0.20
Fe_2O_3	0.2	0.2	0.2	0.2	0.2	0.08		0.15
AL_2O_3	0.2	0.2	0.2	0.2	0.2	0.08		0.15
CaO	1.0	1.0	1.0	1.0	1.0	0.7		0.7
Mn				0.01	0.01	0.00		
Free Moisture						1.5		2.0
Screen test: Through 200 mesh		95%		99.9%	99.9%	99.99%	99.0%	99.0%
Screen test: Through 325 mesh			99.5%	99.5%	99.5%	99.5%		

We will be glad to provide further information on these Magnesia compounds, or to send you a Michigan Chemical Catalog containing technical data and other information on Michigan Chemical products.

MICHIGAN CHEMICAL CORPORATION Saint Louis, Michigan

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New York 17, New York

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Methyl formate, refd., dms.....lb. .35 - .48
tech., non-ref. dms., any quantity, works..lb. .10 - —
Heptin carbonate, bots.....lb.33.00 -42.00
p-Hydroxybenzoate, fib. dms....lb. 1.90 - 2.00
Ionone, standard, cns., dms....lb. 7.50 - —
Isobutyl carbinol, dms., c.l., dlvd. lb. .15 - —
l.c.l., dlvd.....lb. .16 - —
tanks, dlvd.....lb. .13 - —
Ketone, dms., c.l., dlvd.....lb. .15 - —
l.c.l., dlvd.....lb. .16 - —
tanks, dlvd.....lb. .13 - —
Methacrylate, dms., c.l., t.l. frt. equald with Belle, W. V. lb..36½- —
smaller lots, same basis. lb. .37 - —
tanks, same basis.....lb. .35 - —
Naphthyl ketone, cryst., cns. lb. 3.60 - 4.30
Parahydroxybenzoate (see Methyl p-Hydroxybenzoate).
Roseaniline chloride, NF fib. dms., 5-lb. lots,..lb. 5.64 - —
Salicylate, USP, cns., 500-lb. lots.lb. .53 - —
Testosterone, USP, 100-gram bots. gram. .68 - —
2-Methyl-5-ethyl pyridine dms., c.l., works lb. .47½- —
l.c.l., works.....lb. .48 - —
tanks, works.....lb. .46 - —
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted ... lb. 3.25 - 3.60
smaller lots same basis lb 3.40 - 3.60
Chloride, indust., dms., c.l., dlvd. E. lb. .13½- —
Methylionone, A, cns.....lb. 6.55 - 8.80
D, cns.....lb. 7.50 - 9.55
prime, cns.....lb. 4.55 - 6.40
standard, dms., cns.....lb. 3.80 - 4.65
b-Methylnaphthalene, 32°C. m.p., dms., works lb. .90 - —
Methylparaben (see Methyl p-hydroxybenzoate).
Methylpentanediol (see Hexyleneglycol).
Methylphenylpyrazolone (see 1-Phenl-3-methylpyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint plastic, 100 mesh, bgs., c.l., works lb. .04¼- —
roofing, 20 to 80 mesh, works.lb. .03 - .04
wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06¼- —
l.c.l., ex-whse or frt. alld. E lb. .07 - —
paint, or lacq., bgs., c.l., works, frt. alld lb. .07¾- —
l.c.l., ex-whse or frt. alld. E lb. .08½- —
rubber, bgs. c.l. works, frt. alld. E lb. .07½- —
l.c.l. ex-whse or frt. alld. E lb. .08½- —
wallpaper, bgs., c.l., works, frt. allds., E lb. .07¾- —
l.c.l. ex-whse or frt. allds. E lb. .08¼- —
white, extra, fine, bgs., c.l., works, frt. allds. E lb. .07¾- —
l.c.l. ex-whse or frt. allds. E lb. .08½- —
Mica, wet-grd. W. of Miss R. ½c. higher. W of Rockies, 1c. higher.
Milk powder non-fat, roller, bgs., c.l. lb. .12 - .1535
spray bgs., c.l. lb. .14 - .1610
whole, roller, bgs. c.l. lb. No prices.
spray, bgs. c.l lb. .27 - .31
Sugar (see Lactose).
Mineral spirits (see Petroleum mineral spirits).
Molasses, blackstrap feed grade, tanks, New Orleans gal. .10 - .10½
New York gal. .12 - —
Molybdenum (metal), powd., 80 or 200 mesh, ctns., works kilo. 8.80 - —
Trioxide, pure, kgs., works... lb. 1.05 - —
tech., kgs., works, basis Mo. content. lb. 1.23 - —
Monobutylamine, dms., c.l., E. of Rockies lb. .55 - —
l.c.l., same basis.....lb. .56 - —
tanks, same basis.....lb. .53 - —
Monochlorobenzene dms. c.l. frt. alld. or dlvd. E. lb. .10 - —
l.c.l., same basis.....lb. .11 - —
tanks, same basis.....lb. .08½- —
Monoethanolamine dms., c.l., dlvd. E. lb. .27 - —
l.c.l., same basis.....lb. .28 - —
tanks, same basis.....lb. .25 - —
Monoethylalphanaphthylamine (see N-Ethyl-a-naphthylamine).
Monoethylamine 70% contained amine, dms., c.l., dlvd E lb. .33 - —
l.c.l. dlvd. E.....lb. .34 - —
tanks, dlvd. E.....lb. .31 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylortnotoluidin (see N-Ethyl-o-toluidine).
Monoisopropylamine, dms. c.l., dlvd. lb. .30½- —
l.c.l., same basis.....lb. .31½- —
tanks, same basis.....lb. .28½- —
Monomethylamine, 30-35% soln., dms., c.l. frt equald., 100% basis. lb. .40 - —
l.c.l., frt. equald, 100% basis. lb. .40½- —
tanks, frt. equald, 100% basis. lb. .31 - —
40% soln., dms., c.l., frt. equald, 100% basis lb. .37 - —
l.c.l., frt. equald, 100% basis.lb. .37½- —
tanks, frt. equald., 100% basis. lb. .31 - —
Monosodium fluoroacetate (see Sodium fluoroacetate monobasic).
Glutamate (see Sodium glutamate monobasic)
Phosphate (see Sodium phosphate monobasic)
Mono-tertiary-butylmetacresol (see 6-tert-Butyl m-cresol)
Morphine, cns.....oz.12.40 -12.60
Acetate, anhyd., cns.....oz. 9.95 -10.00
Hydrobromide, cns.....oz. 9.90 - 9.95
Hydrochloride, NF, cns.....oz. 9.90 - 9.95
Sulfate, USP, cns.....oz. 9.90 -10.05
Morpholine dms., c.l., dlvd. E lb. .54¾- —
l.c.l. dlvd E.....lb. .55¾- —
tanks, dlvd E.....lb. .52¾- —
Musk, syn., ambrette, 100-lb. lots, fib. dms..lb. 5.15 - —
25-lb lots, cns.....lb. 5.20 - —
5-lb. lots, cns.....lb. 5.30 - —
ketone, 100-lb lots, fib. dms..lb. 5.30 - —
25-lb lots cns.....lb 5.35 - —
5-lb. lots, cns.....lb. 5.45 - —
xylol, 100-lb. lots, fib. dms lb. 1.40 - —
25-lb lots, cns.....lb. 1.45 - —
5 lb lots. cns.....lb. 1.50 - —
Mustard seed, Danish, yellow, bgs lb. .12 - .12½
Dutch, yellow, bgs.....lb. No prices.
English, yellow, bgs.....lb. .12½- .14
Montana, oriental, bgs. ....lb. No prices.
yellow, bgs.....lb. .12½- .13
Myrobalans, J-1, assorted, bgs., ex dock..ton.66.00 - —
crushed, bgs., ex dock.....ton.78.00 -80.00
Bombay, bgs., ex dock.....ton.60.00 - —
extract, Indian, solid, 55% tannin, bgs., ex dock, plus duty..lb. .07¾- —

N

Naphtha, painters (see Petroleum naphtha V. M. & P.).
Solvent (see S).
Naphthalene, crude, dom., 74° tanks, frt. equald lb. .05¼- —
78°, bgs., c.l., same basis lb. .06¾- —
l.c.l., same basis.....lb. .07 - —
tanks, same basis.....lb. .06¼- —
imp., 78°, large lots.....lb. .06¾ Nom.
refd., dms., indust., chipped or or crushed, bgs., frt. equaled lb. .11½- —
flake, bgs., same basis lb. .12½- —
tanks, same basis.....lb. .10¾- —
balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. lb. .13¾- —
cs., 50 lbs., c.l., same basis lb. .14 - —
1-lb. pkgs. c.l. same basis lb. .16¼- —
a-Naphthol, bbls., frt. allds.....lb. 1.00 - —
b-Naphthol, tech., bbls., c.l., works. lb. .34½- —
l.c.l., works.....lb. .36½- —
Benzoate, fib. dms., works .....lb 3.00 - —
custom contract, works....lb. 1.65 - —
Salicylate, dms.....lb 5.00 - —
Sulfate, cns.....lb.35.00 - —
a-Naphthylamine, bbls., frt. alld lb .50 - —
b-Naphthylamine, tech., flake, bbls., works lb. 1.60 - —
Neocinchophen, USP, dms., frt. adjusted lb 7.00 - 8.00
Neomycin, fib. dms., 100-kilo lots, basis, activity gram. .60 - —
1-kilo lots, basis, activity gram. 1.20 - —
Nerolin, cns.....lb 2.45 - 2.65
Niacin (see Acid, nicotinic).
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd.....lb. .77 - .90¼
Carbonate bbls., dlvd.....lb. .73¾- .81¾
Chloride, bbls., dlvd.....lb. .38½- .46½
Formate, bbls., ton lots, frt. alld. lb. .68 - .69
Metal, electro cathodes, cs., works, lb. .64½- —
Nitrate, bbls., works.....lb. .37 - .38
Oxide, black, bbls.....lb. .76 - —
green, bbls.....lb. .76 - —
Sulfate, bgs., c.l., dlvd.....lb. .30¼- —
l.c.l., dlvd.....lb. .31¼- .38¼
Nicotinamide, USP, dms., frt. ad justed kilo.12.00 -12.30
Hydrochloride, dms., frt. adjusted. kilo.11.50 -11.80
Nicotine sulfate, 40%, dealers, 50-lb. dms., frt. allds.... lb. 1.20 - —
manufacturers, 500-lb. dms., frt. allds lb. 1.03 - —
Niger seed, bgs.....lb. .11½- .12
Nikethamide, cbys.....lb. 5.00 - —
m-Nitroaniline, dms., frt. allds lb. 1.05 - —
o-Nitroaniline, flaked, dms.....lb. .54 - .57
powd., dms.....lb. .60 - —
p-Nitroaniline, dms., l.c.l., frt. allds. lb. .51½- —
Nitrobenzene, dbl. dist., dms., c.l., frt. allds lb. .12 - —
l.c.l., frt. allds.....lb. .13 - —
tanks, frt. allds.....lb. .11 - —
o-Nitrobiphenyl, tech., dms., c.l., works lb. .14½- —
l.c.l., works.....lb. .15 - —
tanks, works.....lb. .13 - —

Methyl Formate—a-Nitronaphthalene

Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 13 20, 30-40, 60-80, 125-175, secs., bbls., c.l., works lb. .34 - —
l.c.l., same basis lb. .35 - .37
18-25 cps., bbls., c.l., same basis lb. .36 - —
l.c.l., same basis lo. .37 - .39
250-400, 600-1.000 secs., bbls., c.l., same basis lb. .39 - —
l.c.l., same basis lb. .40 - .42
spirit-soluble, 30-35 cps., ¼, ½, sec., bbls., c.l., same basis.lb. .41 - —
l.c.l., same basis lb. .42 - 44
5-6 cps., 40-60 secs., bbls., c.l., same basis lb. .40 - —
l.c.l., same basis lb. .41 - 43
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.
o-Nitrochlorobenzene, dms., c.l lb. .20 - —
l.c.l., same basis.....lb. .21 - —
tanks, same basis.....lb. .18 - —
p-Nitrochlorobenzene, dms.....lb. .26 - .27
2-Nitro-4-chlorophenol, dms.....lb. .75 - —
Nitroethane, dms., dlvd E of Rockies lb. .25 - —
Nitrogen solution, tanks, frt. equald, 37-40.8% N, 100% basis ton.130.00 - —
Nitrogenous process tankage, bulk, works unit-ton. 4.25 Nom.
Sewage sludge, bulk works unit-ton. 2.93 + .50
Nitromethane, dms. l.c.l., dlvd E. of Rockies lb. .25 - —
a-Nitronaphthalene, bbls, frt. allds. lb. .41 - —

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TRIMETHYLAMINE

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Nitropropane 1—Oil, Pimento Leaf

Nitropropane 1, dms., dlvd. E. of Rockies lb. .23¼- —
2, dms., dlvd. E. of Rockies lb. .25 - —
l.c.l., works lb. .24¾- —
tanks, works lb. .22¾- —
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms., works, frt. equald lb. .50 - —
o-Nitrotoluene, dms. c.l., frt. alld lb. .10 - —
l.c.l., frt. alld lb. .11 - —
tanks, frt. alld lb. .09 - —
p-Nitrotoluene, dms., works lb. .33 - .36
m-Nitro-p-toluidine, dms lb. 1.59 - —
Nitrous ether, conc., bots 100-lb. lots lb. 1.28 - 1.35
Nonyl phenol, dms., c.l., frt. alld. lb. .26 - —
l.c.l., frt. alld lb. .27 - —
tanks, frt. alld lb. .24 - —
Nutgalls, Aleppo, bgs lb. .36 - .38
Chinese, bgs. lb. No prices.
Nutmeg, East Indian, bgs lb. .39 - .40
West Indian, bgs lb. .32 - —
Nux vomica, bbls lb .10 - .12
powd., bbls., bxs lb. .15 - .17

O

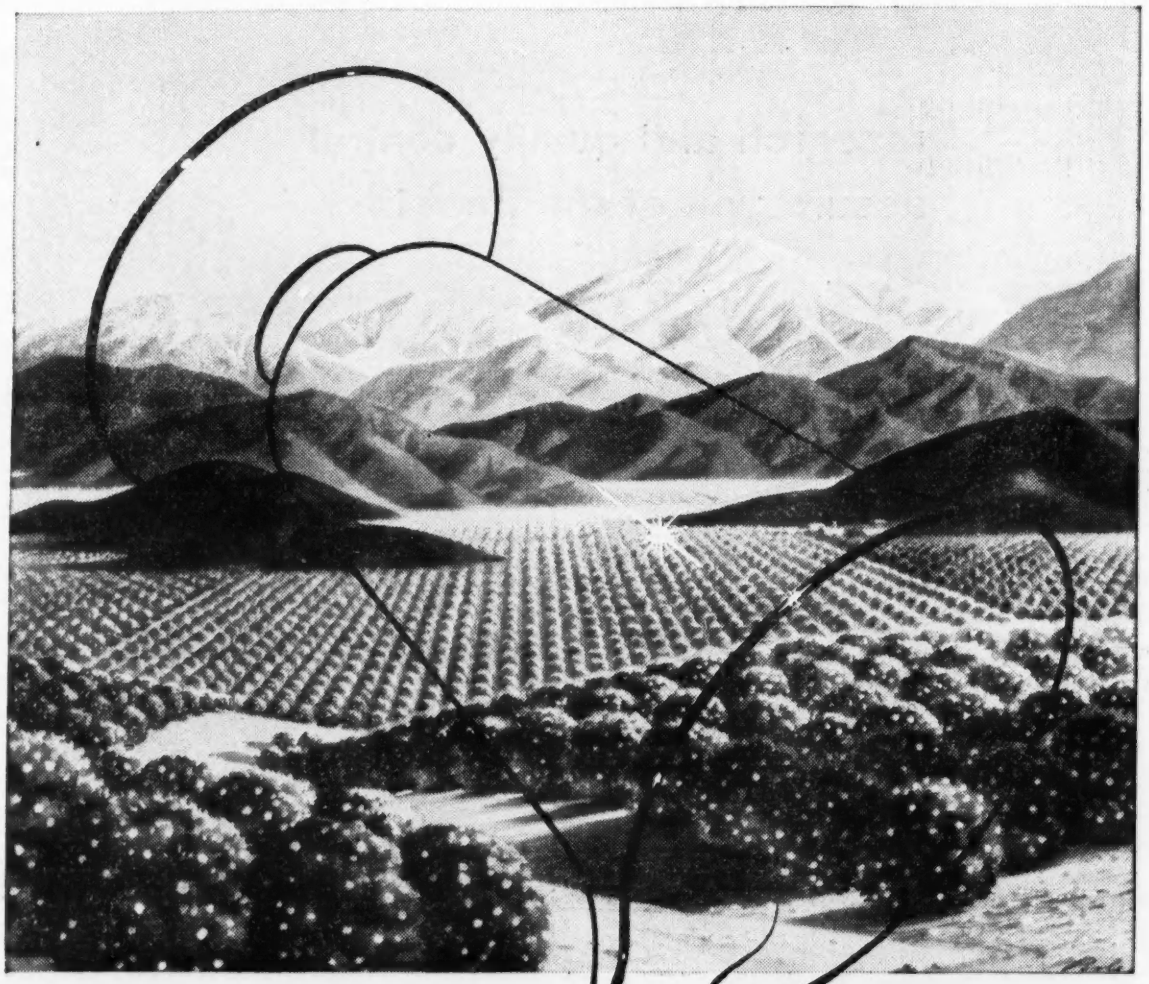
Octane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex gal. .15¾- —
Borger, Tex gal. .15¾- —
1-Octanol, tech., dms., c.l., dlvd lb. .35 - —
l.c.l. dlvd lb. .37 - —
tanks dlvd lb. .32½- —
Octyl phenol, bgs., c.l., works lb. .23¼- —
l.c.l., works lb. .23¾- —
tanks, works lb. .22½- —
Drum prices for octyl phenol are 1c. higher.

(Essential oils prices listed below are f.o.b. New York, with differences between high and low quotations due to differences in quantity, quality or in individual suppliers' views.)

Oil, abies, siberica, cns lb. 3.00 - 3.50
Almond, artif., bitter (see Benzaldehyde).
nat., bitter, F.P.A., bots lb. 3.00 - 3.75
NF, bots. lb. 3.25 - 3.75
sweet, USP, dms., cns lb. .65 - .80
Allspice (see Oil, pimento).
Amyris, dms. lb. 1.40 - 1.95
Angelica root, bots. lb. 66.00 -100.00
seed, bots lb. 56.00 -95.00
Aniline (see A).
Anise, USP, dms lb. 3.50 - 5.00
Apricot, kernel, USP, dms. lb. .38 - .45
Avocado, cns. lb. 3.25 - —
Babassu, crude, tanks lb. .15¼- —
Bay, NF, Puerto Rican, 50-55%, cns lb. 1.85 - 2.20
55-60%, cns. lb. 2.10 - 2.50
West Indian, 50-55%, cns., dms., lb. 1.85 - 2.40
Bergamot, nat., NF, Italian, cns. lb. 9.50 -11.25
Birchtar, crude, cns lb. 1.50 - 1.90
rectified, NF, cns lb. 1.75 - —
Bois de rose, Brazil, dms lb. 4.80 - 6.00
Mexican (see Oil, lignaloe wood).
Bone, dms., works lb. .65 - .70
Cajeput, native, cns lb. 1.75 - 2.10
redist., USP, cns lb. 2.25 - 3.00
Calamus, bots lb. 12.00 -20.00
Oil, camphor, sassafrassy, dms lb. .40 - .60
white, dms. lb. .35 - .50
Cananga, native, cns lb. 7.85 -10.25
rectified, cns. lb. 12.50 -14.75
Caraway, NF, cns lb. 3.75 - 5.00
Capsicum (see Capsicum oleoresin).
Cardamom, NF, bots lb. 35.00 -50.00
Cassia, USP (see Oil, cinnamon, USP).
Castor blown, dms., c.l. lb. .1950- —
l.c.l. lb. .2000- —
dehydrated, bodied, dms., c.l lb. .2160- —
l.c.l. lb. .2210- —
tanks lb. No prices.
unbodied, dms., c.l. lb. .2010- —
l.c.l. lb. .2060- —
tanks lb. No prices.
hydrogenated, bgs., delvd., c.l. lb. .20½- —
bgs., l.c.l. lb. .24 - —
No. 3, tech., dms., c.l. lb. .1475- —
l.c.l. lb. .1525- —
tanks lb. No prices.
No. 1, Brazilian, tanks lb. .12½- —
sulfonated, 50%, dms., l.c.l. lb. .11½- .12
75%, dms., l.c.l. lb. .14½- .15
USP, dms., c.l. lb. .1700- —
l.c.l. lb. .1750- —
tanks lb. No prices.
refd. and deodorized, dms., c.l lb. .1850- —
l.c.l. lb. .1900- —
tanks lb. No prices.
Cedarleaf, cns., dms lb. 2.90 - 3.50
Cedarwood, cns., dms lb. 1.00 - 1.65
Celery seed, bots lb. 12.50 -20.00
Chamomile, blue, Hungarian bots. lb. 170.00 -280.00
Chinawood (see Oil, tung).
Cinnamon bark, bots lb. 25.00 -65.00
leaf, cns. lb. 1.75 - 2.25
USP, cns., dms., (Cassia) lb. No stocks.
Citronella, Ceylon, cns., dms lb. 1.05 - 1.70
Java, true, dms lb. 1.75 - 2.00
Java-type, cns lb. 1.80 - 2.50
Oil, clove, bud, USP, cns., dms lb. 3.25 - 4.20
leaf, unrectified, dms lb. 1.40 - 2.00
Coconut, crude, tanks, N. Y lb. .12⅜- —
Pac. Coast lb. .11⅜- —
refd., Cochin type, tax incl. ret. dms., l.c.l lb. .20¾- —
deodorized, tax incl., non-ret. dms., c.l lb. .22½- —
Cod, Newfoundland, dms lb. .10½- —
Codliver, USP, dms gal. 1.50 - 1.60
Copaiba, cns lb. 1.50 - 2.50
Coriander, USP, bots. lb. 12.50 -18.00
Corn, crude, tanks, works lb. .13⅝- —
foots (soapstock), acid 95%, tanks, N. Y lb. .05½- —
refd., salad, dms lb. .18⅝- .18⅞
tanks lb. .17⅛- —
Costus, bots lb. 8.00 - —
Cottonseed, crude, tanks, South-East lb. .13⅜- —
Valley lb. .13¼- —
Texas lb. .12⅞- —
foots (soapstock), acid, 95%, tanks, N. Y lb. .04¾- —
raw, 50%, tanks, same basis. lb. .02¼- —
refd., salad, dms. lb. .18¼- .18½
tanks lb. .16¾- —
Creosote (see Creosote, coaltar).
Crude (see Petroleum, crude).
Cubeb, cns lb. 4.50 - 6.00
Cumin, bots., cns lb. 4.15 - 5.75
Cypress, bots. lb. 5.30 - —
Degras (see D).
Dillseed, bots. lb. 2.80 - 4.25
Dillweed, dom., bots., dms lb. 3.75 - 5.30
Dip (see D)
Erigeron, cns. lb. 5.50 - 7.50
Eucalyptus, NF, rectified, 70-80%, dms lb. .67 - 1.00
80-90%, dms. lb. .85 - 1.25
Fennel, sweet, USP, cns. lb. 2.30 - 3.25
Fir, Canada, cns. lb. 2.35 - 3.00
Fish, refd., alkali, dms lb. .1300- .1350
kettle-bodied, dms lb. .1530- .1580
light-pressed, dms lb. .1130- .1200
tanks lb. .1000- —
Fishliver, crude, for feeds or concentrating, 4,000 to 12,000 A units per gram, dms., 1,000,000 units. .08 - .09
10,000 to 20,000 A units per gram, dms., 1,000,000 units. .09 - .10
25,000 to 35,000 A units per gram, dms., 1,000,000 units. .09 - .10
40,000 to 55,000 A units per gram, dms., 1,000,000 units .10½- .11
100,000 A units per gram., dms 1,000,000 units. .12 - .14
200,000 A units per gram., dms 1,000,000 units. .12 - .14
300,000 A units per gram, dms. 1,000,000 units. .12 - .14½
400,000 A units per gram, dms., 1,000,000 units . .12 - .14½
500,000 A units per gram, dms 1,000,000 units. .12 - .14½

Prices above are based on the USP XIV method of conversion, Morton Stubbs Corrected E x 1900.

Fusel (see F).
Garlic, pure, bots. oz. 6.50 - 9.50
Gaultheria (see Oil, wintergreen)
Geranium, Algerian, cns lb. 11.50 -14.00
Bourbon, cns. lb. 11.75 -14.50
Turkish (see Oil palmarosa)
Ginger, dist., bots lb. 16.50 -20.00
Grapefruit, dms. lb. 2.50 - 3.25
Grease, No. 1, dms lb. .13¾- .14
extra, winter, strained, dms lb. .17 - .17½
prime, burning, dms lb. .18½- .19
Guaiacwood, cns lb. 1.40 - 1.90
Hemlock, cns. lb. 2.10 - 2.50
Juniper berry, NF, VIII, bots lb. 2.75 - 4.00
twice rectified, bots lb. 3.60 - 7.00
Tar, NF (see Juniper tar).
Wood, tech., cns lb. .42 - .65
Lard (see Oil, grease).
Laurel leaf, dms., cns. lb. 9.75 -12.50
Lavandin, dms., cns. lb. 2.70 - 4.85
Lavender, flower, USP, French, 30-32% ester, cns lb. 3.55 - 4.60
38-40% ester, cns lb. 9.50 -13.20
40-42% ester, cns lb. 10.00 -16.50
Spike, Spanish, cns lb. 1.85 - 2.30
Lemon, USP, Calif., cns., dms lb. 4.75 - 6.15
Messina, cns. lb. 4.85 - 9.80
terpeneless, bots lb. 32.00 -85.00
Lemongrass, cns., dms. lb. 2.25 - 3.25
Lignaloe wood, Mex., cns lb. 2.70 - 4.60
Lime, dist., Mexican, cns lb. 3.30 - 4.75
West Indian, cs lb. 3.30 - 4.75
expressed, West Indian, cns lb. 7.00 - 8.00
terpeneless, bots lb. 29.50 -100.00
terpeneless, bots lb. 32.00 -85.00
Linseed, raw, dms., c.l., N. Y lb. .1515- —
tanks, f.o.b. Minneapolis lb. .1240- —
New York lb. .1365- —
tankwagon, New York lb. .1395- —
Boiled linseed oil, .006c. per lb. higher.
Mace, dist., cns., dms. lb. 2.75 - 3.60
Mandarin (see Oil, tangerine).
Menhaden, crude, tanks, works, Atlantic Coast lb. .08¼- —
Gulf and Atlantic ports, f.a.s. lb. .08¼- —
Mineral, white (see Oil, white mineral).
Mirbane (see Nitrobenzene).
Mustard seed, nat., dms. lb. .18 - —
syn., bots lb. 1.60 - 1.85
Neatsfoot, 15° cold test, dms lb. .33 - .34
20° cold test, dms lb. .32 - .33
30° cold test, dms lb. .30 - .31
Neroli, NF, French, bots lb. 85.00 -275.00
Spanish, bots lb. 35.00 -85.00
Nutmeg, USP, dist., East Indian, cns., dms lb. 3.00 - 4.50
West Indian, cns., dms lb. 2.85 - 3.60
Ocotea, cymbarum, dms lb. 1.10 - 1.50
Oiticica, liquid, dms lb. .14 - .14½
tanks lb. .12¼- .12½
Oleo, extra, dms lb. .15⅜- .16
Olibanum, bots. lb. 5.50 - 7.65
extra fine, bots lb. 8.00 - —
Olive, Spanish, edible, dms., duty paid gal. 2.35 - 2.40
Tunisian, same basis gal. 2.15 - 2.20
Orange, sweet, dist., cns lb. .50 - .80
expressed, USP, Brazilian, cns., dms lb. No stocks.
Calif., cns., dms lb. .55 - 1.25
Florida, cns., dms lb. .45 - 1.25
Messina, cns lb. 3.85 - 5.85
West Indian, cns., dms lb. 2.50 - 3.65
sesquiterpeneless, bots lb. 65.00 -120.00
Origanum, Spanish, cns lb. 1.75 - 2.85
Palm, clarif., dms lb. .12¾- .13¼
kernel, denat., tanks lb. .12⅜- —
Palmarosa, cns. lb. 8.00 - 9.50
Paraffin, pale, 100-110 vis., at 100°F, tanks, East Coast refy gal. .14 - —
Patchouli, dms lb. 8.00 - 9.50
Peach kernel, USP (see Oil apricot kernel).
Peanut, crude, tanks, f.o.b. mills. lb. .15½- —
refd., dms lb. .20¾- .21
tanks lb. .19¼- —
Pennyroyal, USP, imported, cns lb. 2.50 - 3.10
Peppermint, nat., dms. lb. 7.75 - 8.90
redist., USP, dms lb. 8.10 - 9.50
Persic, USP (see Oil, apricot kernel).
Petitgrain, South American, cns., dms lb. 3.80 - 5.30
Pimento, berry, NF, dms lb. 4.90 - 8.00
leaf, cns. lb. 2.55 - 3.10



Oranges are not all alike...

There are as many different varieties of oranges as there are apples. They differ in physical appearance, juice character, peel flavor and in the many constituents which make up the component parts of the fruit. Many oranges that may be comparable in some characteristics may differ widely in others and, in some respects, one may be three or four times as potent as the other.

That is why Exchange Brand California Oil of Orange is the standard the world over for orange flavor excellence. You not only get the benefit of Exchange experience, technical skills and vast fruit resources, but Exchange Brand Oil of Orange is made only from California oranges with peel oil that is far richer in flavor strength and more intense in the aromatic constituents which are universally accepted as true orange flavor.

The cost of flavor is so small, why risk the quality of your product for penny economy? Protect its valuable reputation with the consistent quality and distinctive California feature of Exchange Brand Oil of Orange.

Exchange
OIL OF ORANGE U.S.P.

Sunkist Growers

PRODUCTS DEPARTMENT · ONTARIO, CALIFORNIA • *Produced by* The Exchange Orange Products Co. • Ontario, California
Distributed in the U.S. exclusively by
FRITZSCHE BROTHERS, INC., 76 Ninth Ave., New York 11, N.Y. • DODGE & OLCOTT, INC., 180 Varick St., New York 14, N.Y.

Oil, pine, dest.-dist., dms., l.c.l., works lb. .11¼ - —
ex-whse. lb. .1355- —
steam dist., dms., ex whse., N.Y.C. lb. .163 - —
Pineneedle, Siberian (see Oil, abies siberica).
Rapeseed, tankcars lb. .16 - —
Red (see Acid oleic).
Rice, bran., clarif., dms., l.c.l. lb. .16½- —
tanks, dlvd. E. lb. .14½- —
Rose, nat., Bulgarian, bots. oz. 43.50 - 62.25
Rosemary, Spanish, USP, cns., dms. lb. .60 - 1.00
tech., cns., dms. lb. .50 - .70
Rue, bots. lb. 2.00 - 2.50
Safflower, dms., c.l., Atl. coast lb. .1910- —
tanks, same basis lb. .1760- —
Sage, clary, bots lb. 20.00 - 25.00
Dalmatian, cns. lb. 4.75 - 6.00
Spanish, cns. lb. 1.15 - 1.40
Sandalwood, NF, cns. lb. 13.00 - 14.50
Sardine, crude, tanks, Pac. coast. lb. .09 Nom.
Sassafras, artif., dms. lb. 1.00 - 1.40
nat., Brazilian (see Oil ocotea cymbarum).
dom., USP, cns., dms. lb. 1.75 - 2.20
Savin, cns. lb. 2.75 - —
Savory, cns. lb. 4.25 - —
Sesame, refd., dms. lb. .36 - .37
Shingle stain, tar distillate, dms., c.l., works gal. .35 - —
l.c.l., works gal. .44 - —
tanks, works gal. .23 - —
Snakeroot, Canada, cns. lb. 28.50 - 31.00
Soybean, crude, tanks, Decatur lb. .11⅝- —
foots (soapstock), acid 95%, tanks, N. Y. lb. .06⅜- —
raw, 50%, tanks, N. Y. lb. .02½- —
refd., alkali, dms. lb. .15⅜- .16
tanks lb. .14⅛- —
clarified, dms. lb. .15⅛- .15⅜
tanks lb. .13⅜- —
salad, dms. lb. .16⅛- .16½
tanks lb. .14⅜- —
Spearmint, USP, dms. lb. 4.25 - 5.50
Sperm, bleached winter, 45° dms. lb. .1625- .1650
tankcars lb. .1450- —
nat., winter, 45°, dms. lb. .1525- .1550
tankcars lb. .1350- —
Spruce, cns., dms. lb. 2.10 - 2.75
Sweet birch, USP, Northern, cns. lb. 4.25 - 9.50
Southern, cns. lb. 2.50 - 3.00
Tall, crude, dms., c.l., works lb. .03½- —
tanks, works lb. .02½- —
dist., dms., c.l., works lb. .07½- —
l.c.l., works lb. .07¾- —
tanks, works lb. .06¼- —
refd., dms., c.l., works lb. .06½- .06¾
l.c.l., works lb. .06¾- .07¼
tanks, works lb. .05¼- .05¾
Tallow, acidless, dms. lb. .12 - .12½
Tangerine, Floridian, dms. lb. 2.00 - 2.80
Tansy, dms. lb. 7.75 - 9.00
Tar Acid (see T's).
Pine, coml., dms., c.l., works lb. .528 - .538
l.c.l., works lb. .601 - —
whse lb. .712 - —
tanks, works lb. .427 - .438
rectified, NF, dms., incl., l.c.l., works, South lb. .77 - —
whse., N.Y.C. lb. .87 - —
Theobroma (see Cocoa butter).
Thyme, NF red, cns., dms. lb. 1.70 - 3.75
white, cns. lb. 1.95 - 4.00
tech., white, cns. lb. .40 - 1.85
Tung, dms., c.l., N. Y. lb. .24⅞- —
l.c.l., same basis lb. .25¼- .25½
tanks, N. Y. lb. .2⅜- —
domestic mills lb. .22½- —
Turkey red (see Oil, castor, sulfonated).
Turpentine, NF, cns., dms. lb. .28 - .45
Vetiver, Bourbon, cns. lb. 13.25 - 17.00
Haitian, cns. lb. 11.80 - 21.00
Java, cns. lb. 22.50 - 40.00
Wheat, germ., 5-gal., dms. gal. 10.00 - 13.00
White mineral, tech., 50-65 vis., non-ret., dms., c.l., f.o.b. N. Y. gal. .51½- .54½
65-75 vis., non-ret., dms., c.l., same basis gal. 52½- .55
l.c.l., same basis gal. .57½- .58½
80-90 vis., non-ret., dms., c.l., same basis gal. .53½- .56½
l.c.l., same basis gal. .58½- .59½
125-135 vis., non-ret., dms., c.l., same basis gal. .59½- .62½
l.c.l., same basis gal. .64½- .65½
145-155 vis., non-ret., dms., c.l., same basis gal. .66 - .68½
l.c.l., same basis gal. .71 - .71½
175-185 vis., non-ret., dms., c.l., same basis gal. .69½- .73
l.c.l., same basis gal. .74½- .75
USP, 200-210 vis., non-ret., dms., c.l., same basis gal. .73½- .75
l.c.l., same basis gal. .77½- .78
345-355 vis., non-ret., dms., c.l., same basis gal. .77 - .80
l.c.l., same basis gal. .83 - .85
Wintergreen, USP, nat., Northern, cns lb. 6.35 - 10.30
Southern, cns lb. 3.20 - 19.50
synthetic (see Methyl salicylate).
Wood (see Oil, tung).
Wormseed, cns. lb. 5.00 - 8.00
Wormwood, cns. lb. 5.00 - 6.85
Ylang-ylang, Bourbon, bots. lb. 17.00 - 30.00
extra, bots lb. 28.00 - 40.00
Madagascar, bots. lb. No stocks
Oleostearine, bbls. lb. .11½- .11¾
Opium, USP, cns. lb. 19.20 - 19.45
gran., USP, cns. lb. 21.65 - 21.90
powd., USP, cns. lb. 21.65 - 21.90
Orange cadmium lithopone, bbls., frt. alld. E. of Rockies lb. 1.56 - —
Chrome, CP, bbls., dlvd. N. of Tenn. and N. C., E. of Miss. R., include Davenport, Tenn., and E. of Minneapolis, Rock Island, St. Louis, St. Paul lb. .31 - —
Chrome orange prices are ½c. higher, dlvd. Ala., Fla., Ga., La. (Shreveport); 1½c. Miss., N. C., S. C., Tenn., Dallas and Ft. Worth, Tex., El Paso, Tex.; 2c. Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1.6c. higher dlvd. Pac. Coast for Denver, Pueblo, Salt Lake City. Wichita prices are equalized with Chicago.
Dinitroaniline toner lb. 1.30 - —
Mineral, American, bbls., l.c.l., works lb. .2035- .2060
Molybdated, bbls. lb. .45 - —
o-Nitroaniline toner, kgs. lb. 1.15 - —
Orange peel bitter, Haitian, bls. lb. .14 - .16
sweet, bls. lb. .16 - .18
Orris root, Florentine, bls. lb. .45 - .50
powd., bbls., bxs. lb. .50 - .53
Verona, bls. lb. .35 - .40
powd., bbls., bxs. lb. .40 - .45
Orthoaminobiphenyl (see o-Aminobiphenyl).
Orthoanisidin (see o-Anisidine).
Orthochloroanilin (see o-Chloroaniline).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroparanitroanilin (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroanilin (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitrobiphenyl (see o-Nitrobiphenyl).
Orthonitroparachlorophenol (see 2-Nitro-4-chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidin (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary-amylphenol (see o-tert-Amylphenol).
Orthotolidin (see o-Tolidine base).
Orthotoluidin (see o-Toluidine).
Osage orange, cryst., No. 1, bbls., l.c.l. lb. .40 - —
extract, liq., No. 1, bbls., l.c.l. lb. .19 - —
Ouabain, USP, bots. gram. 3.00 - 4.00
Oxyquinolin sulfate, cns., 100-lb. lots, works lb. 4.75 - 5.00
smaller lots, works lb. 4.92 - 5.17

P

Pancreas substance, assay 1:75 bots., 5-lb. lots or more lb. 4.00 - —
Pancreatin, USP, bots. lb. 1.90 - 2.10
Papain, USP, African, bots. lb. 4.00 - 4.50
Ceylon lb. 3.00 - 3.50
Papaverine, nat. or syn. hydrochloride, USP, cns., 25 oz. to 100 oz. lots oz. 5.00 - —
smaller lots oz. 5.05 - 5.20
Sulfate, cns. oz. 7.10 - 7.35
Paprika, Roumanian, bgs. lb. .28 - —
Spanish, bgs. lb. .36 - .38
Yugoslavian, bgs. lb. .26 - —
Para-aminophenol (see p-Aminophenol).
Para-anisidin (see p-Anisidine).
Parachloranilin (see p-Chloroaniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachloro-orthonitroanilin (see 4-Chloro-2 nitroaniline).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Paraffin, crude scale white, 121°-123°F. ASTM, solid, c.l., refy lb. .0710- —
fully refd., 122°-124°F, ATSM, slabs loose, c.l., refy lb. .0845- —
125°-127°F. ASTM, slabs loose, c.l., refy lb. .0845- —
130°-132°F., ASTM, slabs loose, c.l., refy lb. .0855- —
132°-134°, ASTM, slabs, loose, c.l., refy lb. .0855- —
135°-137°F., ASTM, slabs loose, c.l., refy lb. .0855- —
Prices for paraffin in bags and ctns., c.l. 7/10c. per lb. higher; 1,000 to 9,999 lbs., 2.7c. per lb. higher and under 1,000 lbs. 3.7c. per lb. higher.
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Paraformaldehyde 91% flake, bgs. c.l., frt. alld lb. .10½- —
l.c.l., frt. alld lb. .12½- .13⅛
powd., bgs., c.l., frt. alld lb. .15½- —
l.c.l. frt. alld lb. .17 - —
USP X, fib. dms., c.l. lb. .183 - —
1,000-lb. lots lb. .193 - —
smaller lots lb. .208 - —
Paraldehyde, tech., 98%, 55-gal. dms., c.l. works lb. .13½- —
l.c.l., works lb. .14½- —
tanks, works lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrophenol (see p-Nitrophenol).
Paranitrotoluene (see p-Nitrotoluene).
Paraphenetidin (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, spray powder, 15% dealers, dms., works lb. .50 - .53
tech., dms., c.l., t.l., works lb. 1.3395- —
l.c.l., works lb. 1.51 - —
Paratoluenesulphonamide (see p-Toluenesulfonamide).
Paratoluidine (see p-Toluidine).
Paris green, dealer, distributor, dms. c.l., works, frt. alld. on 96 lbs or over lb. .36 .40
l.c.l., same basis lb. .37 .53
Passion flower herb, bls lb .20 .21
Peanut meal, 45% old process, bgs., mills ton. No prices.
Pectin, citrus, NF, powd., bbls lb. 2.05 - 2.06
tech., powd., bbls lb. 1.50 - —
imported, Danish, ex whse lb. 1.28 - —
Penicillin, crystalline, potassium, sterile, bulk, 1,000,000 units. .05 - .06
Procaine bulk 1,000,000 units. .05 - .06
Sodium, sterile, bulk, 1,000,000 units. .05 - .06
Pentachlorophenol, dms., c.l., t.l., works, frt. equald lb. .21 - —
l.c.l., same basis lb. .22½- .29
Pentaerythritol, tech., bgs., c.l., works lb. .32 - —
l.c.l., works lb. .33 - —
Di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, industrial, tanks, Tex., refy gal. 14⅛ —
Pepper, black, Malabar, spot, bgs lb. .43½- —
Red, Gondar, spot, bgs lb. .28 - .30
Japanese, hontaka, bgs lb. .33 - .34
birdseyes, bgs., new crop lb. .55 - .56
Mombasa, bgs., shipt lb. .30 - —
Nigerian, bgs. lb. .33½- —
Turkish, bgs. lb. .20 - —
White, bgs. lb. .58 - —

NORDA does what Nature does...

NORDA makes good scents

You have smelled lilacs in the Spring, on some night of soft, warm rain. Nature's magic fragrances are magnificent... they're matchless.

Norda works as Nature works, caring for quality first. Norda also does subtle wonders in creating exquisite odors.

Use a Norda scent for your perfumes, colognes, your soaps, your good deodorants. Use a fine Norda scent in your aerosol mists. There's a delicate difference that pleases.

Send a request today on your your letterhead for generous *free* Norda samples.

Always remember—
never forget...
Norda Makes Good Scents

Norda Essential Oil and Chemical Company, Inc.
601 West 26th Street, New York 1, N. Y.

CHICAGO • LOS ANGELES • SAN FRANCISCO • MONTREAL • HAVANA • LONDON • PARIS • GRASSE • MEXICO CITY

Peppermint Leaves—Phthalylsulfacetamide

Peppermint leaves, USP, dom., bls., dms lb. .70 - .75
imp., bls lb. 1.25 - —
Pepsin, NF, 1:3,000 bulk lb. 3.45 - 3.50
Perchloroethylene, dms., c.l., or truckloads, dlvd. E dm.85.00 - —
dlvd. W dm.88.50 - —
l.c.l., dlvd. E dm.95.00 - —
dlvd., W dm.98.50 - —
tanks, dlvd. E lb. .10¾- —
dlvd. W lb. .11¼- —
Peru balsam, dms. lb. 1.50 - 1.75
Petrolatum, amber, dms., c.l., refy. lb. .05 - .05⅛
l.c.l., dlvd lb. .06¾- .07
tanks, refy lb. .03¼- .04⅛
cream, dms., c.l., refy. lb. .06⅛- .07⅛
l.c.l., dlvd lb. .08⅛- .08¾
tanks, refy lb. .04⅜- .05⅛
extra, amber, dms., c.l., refy. lb. .05¼- .05⅞
l.c.l., dlvd lb. .07 - .07¼
tanks, refy lb. .03½- .04⅜
USP, white, lily, dms., c.l., refy. lb. .06⅝- .07¼
l.c.l., dlvd lb. .08⅜- .09⅛
tanks, refy lb. .04⅞- .06
snow, dms., c.l., refd lb. .07⅛- .07¾
l.c.l., dlvd lb. .09⅜- .09⅝
tanks, refy lb. .05⅜- .05⅞
soft, dms., c.l., refy lb. .06¾- .07¾
l.c.l., dlvd lb. .08½- .08¾
tanks, refy lb. .05 - .05⅞
yellow, soft, dms., c.l., refy lb. .05¼- .05¾
l.c.l., dlvd lb. .06⅞- .07⅛
tanks, refy lb. .03½- .05⅛

Petroleum, lacquer diluent, 150°-240°F., b.r., tanks, West Coast, ex tax, Los Angeles gal. .169 - .204
East coast, N. J., N. Y. gal. .19 - —
Group 3, benzol-type gal. .14125- .14625
toluol-type gal. .13125- .13375
Mineral spirits, reg., tanks, California, ex tax, San Francisco gal. .164 - —
East coast, N. J., N. Y. gal. .17 - —
Group 3 gal. .11875- —
tankwagon, Boston gal. .19 - —
Buffalo gal. .195 - —
Chicago gal. .279 - —
Cleveland gal. .22 - —
Newark gal. .18 - —
New York gal. .18 - —
Philadelphia gal. .185 - —
Pittsburgh gal. .18 - —
Providence gal. .195 - —
odorless, tanks, refy., Watson, Cal. gal. .245 - —
Borger, Tex. gal. .24 - —
Houston, Tex. gal. .24 - —
Wood River, Ill. gal. .2625- —
dlvd. N. J. gal. .32 - —
dlvd. N. Y. gal. .33½- —
tankwagon, N. J., dlvd gal. .36 - —
N. Y., dlvd gal. .37 - —
Naphtha, cleaners, tanks, East Coast, N. J., and N. Y. gal. .17 - —
Group 3 gal. .12875- —
tankwagon, Newark gal. .18 - —
New York gal. .18 - —
Philadelphia gal. .185 - —
High solvency (see Petroleum sovent, partial aromatic).

Petroleum, naphtha, VM&P, 225°-300° F, b.r., tanks, West Coast, Los Angeles gal. .169 - —
Portland, Ore. gal. .175 - —
San Francisco gal. .174 - —
Seattle, Wash. gal. .175 - —
East Coast, N. J., N. Y. gal. .18 - —
Group 3 gal. .12875- —
tankwagon, Boston gal. .205 - —
Chicago gal. .289 - —
Cleveland gal. .23 - —
Newark gal. .195 - —
New York gal. .195 - —
Philadelphia gal. .20 - —
Pittsburgh gal. .19 - —
Solvent, partial aromatic, tanks, 205°-282°F., b.r., 41°C., m.a.p., N. Y., N. J. gal. .245 - —
212°-278°F. b.r., 43°C. m.a.p., N. J. gal. .26 - —
212°-284°F. b.r., 19°C. m.a.p., N. J. gal. .29 - —
224°-280°F. b.r., 48°C. m.a.p., Houston gal. .215 - —
273°-361°F. b.r., 29°C. m.a.p., N. J. gal. .29 - —
282°-325°F. b.r., 41.5°C. m.a.p. Houston gal. .25 - —
287°-386°F. b.r., 31°C. m.a.p., N. J. gal. .29 - —
310°-344°F. b.r., 13.5°C. m.a.p., Texas City gal. .33 - —
310°-348°F. b.r., 17°C. m.a.p., N. Y., N. J gal. .35 - —
320°-360°F. b.r., 16°C. m.a.p., N. Y., N. J. gal. .33 - —
324°-349°F. b.r., 37°C. m.a.p., Houston gal. .33 - —
341°-390°F. b.r., 35°C. m.a.p., N. J. gal. .27 - —

Petroleum, solvent, partial aromatic, tanks, 352°-413°F, b.r., 36°C. m.a.p., Houston gal. .33 - —
352°-410°F. b.r., 16.5°C. m.a.p., Texas City gal. .33 - —
358°-401°F. b.r., 25°C. m.a.p., N. Y., N. J gal. .39 - —
364°-404°F. b.r., 19°C. m.a.p., N. Y., N. J gal. .425 - —
367°-418°F. b.r., 19.6°C. m.a.p., N. Y., N. J. gal. .33 - —
Rubber, tanks, Cal., ex tax, San Francisco gal. .173 - —
East Coast, N. J., N. Y., gal. .18 - —
Group 3 gal. .12875- —
Stoddard, tanks, East Coast, N. J., N. Y. gal. .17 - —
Group 3 gal. .12375- —
Pennsylvania, western gal. .15 - —
Boston gal. .19 - —
Chicago gal. .289 - —
Cleveland gal. .22 - —
Los Angeles, ex tax gal. .194 - —
Newark gal. .18 - —
New York gal. .18 - —
Philadelphia gal. .185 - —
Pittsburgh gal. .18 - —
Sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works lb. .16 - .18¼
c.l., works lb. .17 - .18½
tanks, works lb. .14 - .16½
50-55% sulfonic content, non-ret. dms., c.l., works lb. .15½- —
l.c.l., works lb. .16½- —
tanks, works lb. .12½- —
o-Phenetidine, dms., works lb. 1.00 - —
p-Phenetidine, dms., works lb. 1.00 - —
Phenobarbital, USP, dms., 100-lb. lots lb. 4.00 - —
Phenobarbital-sodium, USP, dms., 100-lb. lots lb. 4.00 - —
Phenol, 90-92% (cresol 8-10%), non-ret. dms., c.l., frt. alld. E. of Rockies lb. .15¾- —
l.c.l., same basis lb. .16½- —
tanks, same basis lb. .14 - —
82-84% (cresol 16-18%), non-ret. drums, c.l., same basis lb. .15¼- —
l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13½- —
39° or above, tar distilled, non-ret. dms., c.l., same basis lb. .17¼- .17¾
l.c.l., same basis lb. .18 - .18¼
tanks, same basis lb. .15½ —
USP, syn., dms., c.l., frt. alld. lb. .17¾- —
1,000-lb. lots or more, same basis lb. .18½- —
less than 1,000-lb. lots, same basis lb. .19½- —
tanks, same basis lb. .16 - —
Phenolphthalein, USP, or yellow, bbls., dms., 2,000-lb. lots. lb. 1.10 - —
smaller lots lb. 1.12 - 1.17
Phenothiazine, NF, fib. dms., c.l., frt. adjusted lb. .39 - —
over 2,100 lbs., same basis lb. .41 - —
less than 2,100 lbs., same basis. lb. .43 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Salicylate (see Salol.)
Phenylacetaldehyde, soln., 50% bots lb. 2.40 - 2.70
100%, bots lb. 4.00 - 4.65
Phenylacetamide, 125-lb. dms., works lb. 1.10 - —
smaller dms., works lb. 1.15 - 1.10
dl-Phenylalanine, dms., works lb. 27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, 250-lb. fib. dms., dlvd. E lb. 3.60 - —
smaller dms., dlvd. E lb. 4.00 - —
Phenyldiethanolamine, dms., c.l., dlvd. E lb. .40½- —
l.c.l., dlvd. E lb. .41½- —
m-Phenylenediamine, dms., frt. alld. lb. .90 - —
o-Phenylenediamine, coml., 100 to 1,000 lbs., fib. dms., works lb. 1.70 - 1.80
p-Phenylenediamine, redist., dms., works lb. 2.00 - —
tech., refd., dms., same basis lb. 1.10 - 1.35
Phenylethanolamine, dms., c.l., works lb. .69¼- —
l.c.l., same basis lb. .70 - —
Phenylethyl acetate, bots lb. 1.30 - —
b-Phenylethylamine, dms., 1,000-lb. lots, works lb. 1.10 - —
smaller lots, works lb. 1.15 - 1.40
Phenylethylphenyl acetate, bots lb. 3.95 - 4.40
Phenylhydrazine base, CP, bots lb. 3.00 - 3.07
Hydrochloride, coml., kgs., works, lb. 1.75 - —
purif., bots., works lb. 5.17 - —
1-Phenyl-3-methyl pyrazolone-5, 250-lb. lots, dlvd. E lb. 1.70 - —
smaller lots, dlvd lb. 2.00 - —
o-Phenylphenol, dms., l.c.l., works lb. .42 - .44
p-Phenylphenol, bgs., c.l., works lb. .35 - —
l.c.l., works lb. .39½- —
Phloroglucinol, coml., fib. dms., works lb. 6.40 - —
C.P., bots., works lb. 17.75 - —
tech., tin cans., works lb. 10.45 - —
Phosphate, defluorinated (see under D).
Rock, Curacao, Atlantic ports, New Orleans ton. 43.00 - —
Florida, land pebble, run-of-mine, washed, dried unground, bulk, c.l., mines, 68-66%, b.p.l., bulk, c.l., mines long ton. 4.60 - —
70-68%, b.p.l., c.l., same basis long-ton. 5.00 - —
72-70%, b.p.l., c.l., same basis long-ton. 5.65 - —
75-74% b.p.l., c.l., same basis long-ton. 6.65 - —
78-76%, b.p.l., c.l., same basis long-ton. 7.65 - —

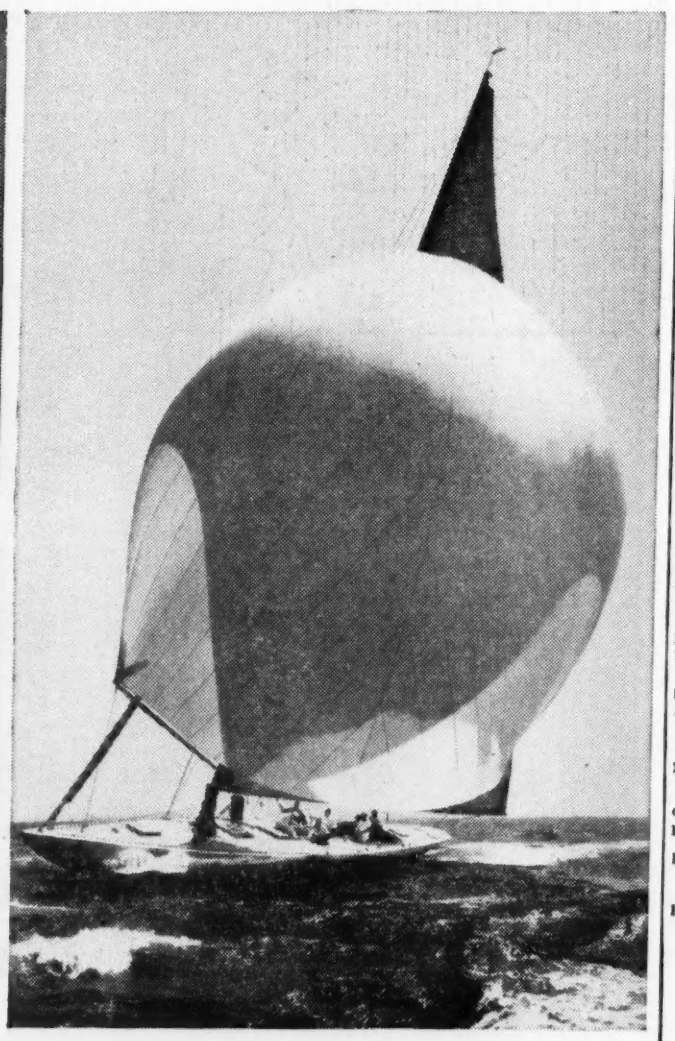
The above prices are based on fuel oil at $2.20 per bbl. and labor at $1.28. The 3c. labor advance and 9c. fuel oil advance currently absorbed.

Phosphorus, amorph., red, dms., t.l. lb. .43 - —
smaller lots lb. .44 - .45
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20¼
l.c.l., works, frt. equald. lb. .21 - .21¼
tanks, works, frt. equald lb. .17 - .19
Oxychloride, dms., c.l., works lb. .14 - —
l.c.l., dms., works lb. .17 - —
tanks, works lb. .12½- —
Pentasulfide, solid, dms., c.l., works lb. .11¼- —
l.c.l., works lb. .13 - .13½
Pentoxide, dms., c.l., works lb. .13½- —
l.c.l., works lb. .16½- —
Sesquisulfide, tins, cs., works lb. .29 - —
export, dms. lb. .31 - .36
Trichloride, dms., c.l., works lb. .14 - —
l.c.l., works lb. .17 - —
tankcars, works lb. .12½- —
Phthalic anhydride, ogs, c.l., works, frt. equald lb. .20 - —
l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19¼- —
Phthalimide, 97%-98%, dms., works, frt. alld lb. .65 - .70
Phthalylsulfacetamide, 1,000-lb. lots or more lb. 5.00 - —

Enjay helps keep your sales out front

IN SURFACE COATINGS (*Paint and Varnish*)

IN PETROLEUM (*Lubricants and Gasoline Additives*)



IN CHEMICALS (*Synthetic Fabrics*)

Products that lead in sales are the products that deliver dependable quality and performance. And where quality and performance count, rely on Enjay. Enjay supplies the chemical, surface coating and petroleum industries with a complete line of uniform, high quality petroleum chemicals, backed by pioneering research, experience and proved results. Enjay is also ready to assist you in developing new or improved products through chemistry. Call Enjay *next* time for your chemical needs.

Enjay Company, Inc. • 15 West 51st Street, New York 19, N. Y.

PETROLEUM	SURFACE COATING	CHEMICAL
PARANOX	PETROHOL 91	PETROHOL 91
PARATONE	PETROHOL 95	PETROHOL 95
PARAFLOW	PETROHOL 99	PETROHOL 99
PARAPOID	JAYSOL	JAYSOL
PARADYNE	Secondary Butyl Alcohol	Iso-Octyl Alcohol
PARATAC	Secondary Butyl Acetate	Decyl Alcohol
PETROHOL	Isopropyl Acetate	Denatured Ethyl Alcohol
Methyl Ethyl Ketone	Acetone	Tridecyl Alcohol
Dewaxing Aid	Methyl Ethyl Ketone	Dicyclopentadiene
Ethyl Ether	Dicyclopentadiene	Isoprene
Isopropyl Ether	Ethyl Ether	Butadiene
Reference Fuels	Isopropyl Ether	Ethyl Ether
RUBBER	Naphthenic Acids	Isopropyl Ether
ENJAY BUTYL	Iso-Octyl Alcohol	Tetrapropylene
VISTANEX	Decyl Alcohol	Tripropylene
	Denatured Ethyl Alcohol	Aromatic Tars
		Benzene
		Acetone
		Methyl Ethyl Ketone

ENJAY

35 successful years of leadership in serving industry

a-Picoline, ret. dms., c.l., works, frt. equald. lb. .43 - .43½
t.c.l., works, frt. equald. lb. .44 -
tanks, same basis. lb. .415 - .422
b,g-Picoline, 5°. dms., c.l., works. lb. .32½- —
t.c.l., works. lb. .33 - —
g-Picoline, 98%, dms., c.l., works. lb. 2.65 - —
Pilocarpine hydrochloride, USP, bots or 5.25 -
Nitrate, USP, bots., vials. oz. 4.80 - 4.90
Pimento, Jamaican, bgs. lb. .85 - —
Mexican, bgs. lb. .68 - —
Pink root, bls. lb. 3.00 3.25
d-Piperazine hexahydrate, French Codex, bots kilo 8.00 8.50
Piperidine 98% dms. frt. equald. lb 2.90 3.00
Piperonyl butoxide, dms., dlvd. E. lb. 4.50 - 5.05
Cyclonene, dms., dvld. E. lb. 3.70 - 4.25
Pitch, coaltar, 150°-170°F, m.p., tanks, works ton.35.00 -
Cottonseed, raw, dms., works lb. .02¼- 03
Linseed, dms. lb. .06 Nom.
Marine, dms. lb. .04¼ 05
Petroleum (see Asphalt, petroleum).
Soybean dms., works lb. .05 Nom
Tall, dms., works lb. .03¾ 04½
Plaster of Paris (see Gypsum).
Platinum metal, works oz.77.00 -79.00
Pleurisy root, bls. lb. 45 .50
Podophyllum resin, NF, dms. lb.11.95 -
Poke root, bls. lb. .19 - .22
Polymyxin, bulk, bots., dms., 50 billion units or more. 1,000,000 units. .52 -
25-50 billion units 1,000,000 units. .54 -
1-25 billion units 1,000,000 units. .56 -
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .41 -
10,000-20,000-lb. lots, works. lb. .43 -
smaller lots, works lb. .46 - .48
tristearate, dms., 20,000-lb. lots, works lb. .41 -
10,000-20,000 lb. lots, works. lb. .43 -
smaller lots, works. lb. .46 - .48
Poppy seed, Argentine, bgs. lb. .23 -
Dutch, bgs. lb. .27 -
Iranian, bgs. lb. .19 -
Polish, bgs. lb. .26 -
Turkish, bgs. lb. .23 -
Potash, caustic, reg., flake, 88-92%, dms., c.l., works 100 lbs. 9.15 -
t.c.l., works 100 lbs.10.20 -
liq., 45% basis, dms., c.l., works. 100 lbs. 4.25 -
t.c.l., same basis 100 lbs. 5.05 -
tanks, same basis 100 lbs. 3.70 -
solid, 88-92%, dms., c.l., works. 100 lbs. 8.70 -
t.c.l., works 100 lbs. 9.75 -
Potassium acetate, NF, dms. lb. .31 - .36
Bicarbonate, USP, gran., dms. lb. .22 -
powd. dms. lb. .24 -
Bichromate, bgs., c.l., works. lb. .15 -
t.c.l., works. lb. .15½- —
Potassium bichromate in dms. ½c. higher.
Bitartrate, NF, dom., gran. or powd., bbls., 5,000 lbs. 1 shpt. lb. .36½- —
dms., c.l. lb. .36 -
smaller lots. lb. .37 - .40
imp., kgs. lb. .27¾- .28
Bromate, dms., 1,000 lbs. or more. lb. .47 -
25-200-lb. lots. lb. .57 - .62
Bromide, USP, gran., bbls., kgs. lb. .35 - .36
Carbonate, tech., calcined, bbls., c.l., works 100 lbs. 9.00 -
t.c.l., same basis 100 lbs.10.05 -
hydrated, 83-85%, bbls., c.l., works 100 lbs. 7.60 -
t.c.l., works 100 lbs. 8.65 -
NF, gran., bbls., dms. lb. .20 -
powd., bbls., dms. lb. .21 - .23
Chlorate, cryst., dms., c.l., works lb. .10¼- —
t.c.l., works lb. .11½- .12
powd., dms., c.l., works. lb. .10¾- —
t.c.l. works lb. .12 - 12½
export, dms., New York. lb. .12¾- .13½
NF, gran., 25-lb. metal dms. lb. .35 -
Chloride, USP, cryst., dms. lb. .21 - .23
gran., dms. lb. .15 - .17
powd., dms. lb. .24 - .26
Chromate, tech., bgs. lb. .50 - .50½
Citrate, USP, gran., dms. lb. .41 -
powd., dms. lb. .40½- .41½
Cyanide, dms., 20,000-lb. lots or more, works. lb. .45 -
2,000-19,999-lb. lots. lb. .455 -
smaller lots, works. lb. .465 -
Dichromate (see Potassium bichromate).
Ferricyanide, drums, ton lots. lb. .50 -
Ferrocyanide, bgs., ton lots. lb. .22½- —
smaller lots. lb. .23 -
Fluorborate, fib. dms., c.l., works lb. .30 -
t.c.l., works. lb. .31 -
Fluoride, dms., works. lb. .37 - .38
Gluconate, dms. lb. .75 - .79
Glycerophosphate, 75% solution, cbys. lb. 2.15 - 2.25
Guaiacolsulfonate, NF, dms. lb. 2.10 - 2.30
Hydroxide, tech. (see Potash caustic).
USP, pellets 100-lb. dms. 1 to 100-dm. lots lb. .28½- .30
Hypophosphite, NF, fib. dms., ton lots or less lb. 1.00 - 1.03
Iodide, dms. lb. 2.15 - 2.20
Manure salt, 22% K_2O, bulk, mines unit-ton. .19 -
Metabisulfite, gran., dms. lb. .20 - .21
powd., dms. lb. .25 -
Muriate, dom., 50-60% K_2O, bulk, Carlsbad, N. M. unit-ton. .39½- .40½
50-51% K_2O, paper bgs., Carlsbad, N. M. ton.24.50 -
Nitrate, cryst., bbls., 10,000-ton lots. 100 lbs.14.40 -
smaller lots. 100 lbs.14.65 -14.90
gran., bbls., 20-ton lots. 100 lbs. 9.75 -
smaller lots. 100 lbs.11.10 -11.50
powd., bbls., 20-ton lots 100 lbs.10.75 -
100 lbs.10.75 -
smaller lots. 100 lbs.12.00 -12.50
USP, gran., dms. lb. .18 -
Potassium nitrate in bags, 50c. per 100 lbs. less in kegs, $1 more.
Oxalate, neutral, tech., fine gran., bbls., dms. lb. .30 - .32
Pentaborate, gran., bgs., c.l., works. ton.189.00 -
dms., ton lots, ex whse. ton.293.50 -
smaller lots, ex whse. ton.29800 -
Powdered Potassium pentaborate, $10.25 per ton higher.
Perchlorate, dms., c.l., works. lb. .15 -
t.c.l., works lb. .16½- —
Permanganate, tech., dms., works. lb. .22½- .23½
USP, dms., works lb. .24¾- .30¼
Persulfate, dms., 5-ton lots, works. lb. .18 -
1-ton lots, works. lb. .20 -
Phosphate, tetrabasic, bbls., works lb. .16½- .18½
Prussiate, red (see Potassium Ferricyanide).
yellow (see Potassium Ferrocyanide).
Silicate, glass, bgs., c.l., works. 100 lbs.17.00 -17.30
t.c.l. 100 lbs.17.80 -

Potassium silicate, soln., clarif., 29° Be, 1:2.5, dms., c.l., works. 100 lbs. 5.80 -
t.c.l., 5 dms., or more, works. 100 lbs. 6.55 - 6.95
tanks, works 100 lbs. 5.45 -
electrical grade, 29° Be, 1:2.0 dms., c.l., works 100 lbs. 6.50 -
t.c.l., 5 dm or more, works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 -
40.5° Be, 1:2.1, dms., c.l., works 100 lbs. 6.45 -
t.c.l., 5 dms. or more, works 100 lbs. 7.20 - 7.60
tanks, works 100 lbs. 6.10 -
Silicofluoride, bbls., works lb. .09 - .10
Stannate, dms., frt. alld E. lb. .674 - .74
Sulfate, agricultural, 49-51%, K_2O, bulk, works ton.35.00 -
NF VII cryst. dms. lb. .31 - .33
gran. dms. lb. .18½- —
powder dms. lb. .36½- .17
Sulfocyanide, NF, cryst. (see Potassium thiocyanate).
Thiocyanate, NF, cryst., dms. lb. .84 - .94
tech., works lb. .77 - .79
Titanate, etrs., c.l., works. lb. .14 -
5-ton lots, works. lb. .14½- —
1-ton lot or less, works. lb. .14¾- —
Toluene sulfonate, dms., c.l. or tl. works lb. .42 -
t.c.l., works. lb. .46 -
Potassium-magnesium sulfate, bulk, works basis 40% K_2SO_4, 18% MgO ton.15.05 -
Potassium-sodium tartrate, NF gran., powd., dms., c.l. lb. .36½- —
5,000-lb. lots. lb. .37 -
smaller lots. lb. .37½- .42½
Potassium-titanium fluoride, fib. dms., works lb. .39 - .40
Potassium-zirconium fluoride, fib. dms., c.l., works lb. .50 -
t.c.l., works. lb. .52½- .55
Pregnenolone, bots. gram. .45 -
Acetate, bots. gram. .40 -
Procaine hydrochloride, USP, dms., 1,000-lb. lots, frt. alld lb. 2.90 -
100-lb. lots. lb. 3.00 - 3.60
Progesterone, USP, bots., 100 gram lots. gram. .50 -
Acetate, bots. gram. .70 -
Propane, indust., tanks, group 3. gal. .02 -
N. Y. Harbor. gal. .07¾-
n-Propyl acetate, dms., c.l., dlvd. lb. .12¾- —
t.c.l., dlvd. lb. .13¾- —
tanks, dlvd. lb. .1073- —
Gallate, dms., 100 to 2,050-lb. lots, works lb 3.90 4.40
n-Propyl p-hydroxybenzoate, USP, dms. lb. 2.30 - 2.40
Thiouracil, bots., 50-kilo lots or more. kilo.55.00 -
smaller lots. kilo.55.10 -55.30
Propylene dichloride, dms., c.l., dlvd. E lb. .0825- —
t.c.l., same basis. lb. .095 —
tanks, same basis. lb. 07 -
Prices in West 1c. higher dlvd., un same basis.
Glycol, indust., dms., c.l., dlvd. E lb. .14¾- —
t.c.l., same basis. lb. .15¾- —
tanks, same basis. lb. .13 -
USP, dms., c.l., dlvd. E. lb. .16¾- —
t.c.l., same basis. lb. .17¾- —
tanks, same basis. lb. .15 - —
Propylene glycol, methyl ether, dms., c.l., dlvd. lb. .20 -
t.c.l., same basis. lb. .21 -
tanks, same basis. lb. .18½- —
Oxide, dms., c.l., dlvd. E. lb. .17 -
t.c.l., dlvd. E. lb. .18 -
tanks, dlvd. E. lb. .15 -
Psyllium seed, black, bgs. lb. .55 -
blonde, bgs. lb. .18 -
husks, bgs. lb. .40 -
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots. lb. .03¾- .04¼
smaller lots. lb. .03⅞- .04½
imp., Italian, silk-screen, coarse, bgs., ton lots. lb. .06½- —
fine, bgs., ton lots. lb .04 -
sun dried coarse bgs, ton lots. lb. 02½ 04
fine bgs., ton lots. lb. 02½ 04
Pumpkin seed, bgs. lb. .25 .26
Pyrethrin, syn., (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bbls., works lb. .45 -
powd., 1.3% pyrethrins, bbls., works lb. .65 -
liq. 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works gal. 8.35 8.55
100/1 basis (10 grams pyrethrins per 100cc odorless base), dms., works gal.41.75 -42.75
oleoresin, dewaxed, 20%, dms., works lb 9.80 9.90
purif., 20% dms., works lb.10.00 -10.10
Pyridine, denaturing, dms., c.l., works and frt equald gal. 2.77 -
t.c.l., same basis gal. 2.80 -
refd., 2°, non-ret. dms., t.c.l., same basis lb. .75 -

CHEMICAL PROGRESS WEEK-MAY 16-21

mutual

chromium

chemicals

SODIUM BICHROMATE $Na_2Cr_2O_7 2H_2O$

USES — Chrome tanning, dry color manufacture, textile dyeing, chemical oxidation, cleaning brass, copper, zinc, tin and other metals, corrosion inhibition, wood preservation.

SHIPPING CONTAINERS
Bags, 100 lb. net • Steel drums, 100 lb. net • Fibre drums, 400 lb. net • 69% solution in tank cars

SODIUM CHROMATE Na_2CrO_4

USES — Proprietary dry chemical mixtures, corrosion inhibition, wood preservation.

SHIPPING CONTAINERS
Steel drums, 100 lb. net • Fibre or steel drums, 400 lb. net

POTASSIUM BICHROMATE $K_2Cr_2O_7$

USES — Same as Sodium Bichromate; production of pigments, matches, green glass and vitreous enamels; photography and blueprinting; for dyeing.

SHIPPING CONTAINERS
Bags, 100 lb. net (granular only) • Steel drums, 100 lb. net • Fibre drums, 400 lb. net • (Available in granular or powdered form)

AMMONIUM BICHROMATE $(NH_4)_2Cr_2O_7$

USES — Photographic reproduction such as in photo-engraving, pyrotechnics, catalyst manufacture, porcelain colors.

SHIPPING CONTAINERS
Fibre drums, 100 lb. net • Barrels, about 350 lb.

CHROMIC ACID CrO_3

USES — Chromium plating, anodizing aluminum, chemical treatment of magnesium and aluminum alloys, inhibitive dips for metal prior to painting, manufacture of drugs, chemicals and catalysts.

SHIPPING CONTAINERS
Steel drums, 100 lb. net • Steel drums, 400 lb. net

MUTUAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
99 PARK AVENUE • NEW YORK 16, N. Y.

Pyridoxine Hydrochloride—Silica, Hard Quartz

Pyridoxine hydrochloride, bots., 100-gram lots gram .55 - —
Pyrites, Canadian works long-ton 3.00 - 5.00
Pyrocatechol (see Catechol).
Pyrogallol, NF, dms. lb. 3.27 - 3.30
Pyroxylin, scrap, ungrd., amber, dms., works lb. .20 - —
black, dms., works lb. .12 - —
mixed, mottled, dms. works lb. .13 - —
shavings, amber, cs., works lb. No stocks.
mixed colors, dms., works lb. .11 - —
white, china, ivory, dms., works lb. .16 - —
dense, opaque, dms., works. lb. .12 - .15
translucent pastels, cs., works. lb. .14 - —
transparent colorless, dms., works lb. .25 - —
colors, dms., works lb. .15 - —
USP, bots lb. 9.50 - —

Q

Quassia chips lb. 17 - —
Quebracho extract, clarif., grd., 70% tannin, bgs. c.l., lb. .16½- .16¾
liq., 35% tannin, bbls., works. lb. .08¼- —
solid., clarif., 64% tannin, bgs., c.l., ex-dock, duty extra lb. .12 23/64- —
ord., 63% tannin, bgs., c.l., same basis lb. .11 21/32- —
Quercitron extract, cryst., No. 1, bbls., l.c.l. lb. .40 - —
liq., No. 1, bbls., l.c.l lb. .19 - —
Quicksilver (see Mercury metal).
Quince seed, bgs lb. 2.00 Nom.
Quinidine, NF, V cryst., cns., 100-oz. lots oz. 1.15 - —
powd., precip., cns., 100-oz. lots. oz. 1.17 - —
Sulfate, USP, cns., 100-oz. lots. oz. .87 - —
Quinine, NF, cns., 100-oz. lots oz. .54 - —
Bisulfate, USP, cns., 100-oz. lots oz. .37½- —
Dihydrochloride, USP, cns., 100-oz. lots oz. .54 - —
Ethylcarbonate, NF, cns., 100-oz. lots oz. .63½- —
Hydrobromide NF cns. 50-oz cns. oz. .47½- —
Hydrochloride, USP, cns., 100-oz. lots oz. .47½- —
Phosphate, NF, cns. 100-oz. lots oz. .61 - —
Salicylate, NF, cns., 100-oz. lots oz. .55 - —
Sulfate, USP, cns., 100-oz. lots oz. .42 - —
Quinine and Urea hydrochloride NF, cns oz. .56 - —
Quinoline, dms., c.l., frt. equald lb. .56¾- —
l.c.l., same basis lb. .51¼- —
tanks, same basis lb. .50 - —

R

R salt, paste, dms., frt. alld., 100% basis lb. .88 - —
powd., frt. alld., 100% basis lb. .98 - —
Rauwolfia serpentina, root, powd., bbls, dms lb. 2.00 - 3.00
Red, BON acid maroons, pure, bbls. lb. 1.75 - —
resinated, bbls lb. 1.50 - —
arylid, deep shades, bbls. lb. 3.60 - —
light shades, bbls lb. 2.75 - —
maroon, bbls lb. 3.60 - 5.90
Cadmium, CP, dark shade, bbls., frt. alld. E. of Rockies lb. 4.30 - —
light shade, same basis lb. 4.00 - —
medium shade, bbls., same basis lb 4.25 - —
lithopone, medium-light shade, bbls., same basis lb. 4.05 - —
orange shade, bbls., same basis lb. 3.95 - —
deep shade, bbls., same basis lb. 1.93 - —
light shade, bbls., same basis lb. 1.70 - —
maroon shade, bbls. same basis lb. 2.05 - —
medium shade, bbls. same basis lb. 1.85 - —
medium-light shade, bbls., same basis lb. 1.77 - —
orange-red shade, bbls, same basis lb. 1.64 - —
Red cadmium lithopone all shades, in smaller pkgs., 5c. per lb higher; all prices are 1c per lb higher ex whse. Los Angeles and San Francisco
Carmine No. 40 (see Carmine).
Dyes (see Dyes, coaltar)
Eosin toner, bbls, works lb. 1.60 - —
Indian, dom., pure, bgs., Bethlehem, Easton, E. St. Louis, N. Y. lb. .12¾- —
Red iron oxide, nat., 75%-85% ferric oxide, bgs., l.c.l., Bethlehem, Pa., Copley, O., Easton, Pa., East St. Louis lb. .04 - .07½
syn. 98% ferric oxide, bgs., c.l., works lb. .12¾- —
l.c.l., works lb. .13 - —
Lake C toner, alizarin, bbls., works lb. 1.10 - 1.20
Lithol toner, bbls., works lb. .85 - —
rubine toner, pure, bbls., works. lb. 1.50 - —
resinated, bbls., works lb. 1.40 - —
Virginia type, bbls., works lb. 1.40 - —
Maroon toner, MNPT, kgs., works. lb. 3.60 - —
10,000-lb. lots, works lb. 4.22 - —
smaller lots, works lb. 4.24 - —
Metallic, bbls., c.l., works lb. .02½- —
l.c.l., works lb. 02¾- —
Naphthol ITR, bbls., works lb. 5.25 - —
Oxide (see Red iron oxide).
Persian Gulf, bgs., c.l., works. lb. .06¾- —
l.c.l., works lb. 07 - —
Para, toner, bbls. lb. 1.05 - —
chlorinated, kgs lb. 1.10 - 1.15
Phloxin toner (see Red eosin toner).
Rhodamine, molybdated, PMA, kegs lb. 5.35 - —
tungstated, PTMA, works, kegs. lb. 5.95 - —
Spanish oxide, bbls., c.l., ex dock lb. .05¾- —
l.c.l., ex dock lb. .06 - —
ex whse., New York lb. .06½- —
Toluidine toner, deep shades, kgs., works lb. 1.60 - —
light shades, kgs., works lb. 1.60 - —
Turkey, bbls., works lb. .62 - —
Tuscan, bbls., frt. equald lb. .24½- .25
Venetian, 15%, bgs., works lb. .0350- .037
20%, bgs., works lb. .0475- —
25%, bgs., works lb. .0525- —
30%, bgs., works lb. .0550- —
35%, bgs., works lb. .0575- —
40%, bgs., works lb. .0625- —
Watchung-type, bbls lb. 1.95 - —
Red KB base (see 4-Chloro-2-aminotoluene).
Red, precipitate (see Mercuric oxide, red).
Red saunders, NF, powd., bbls lb. .35 - .40
Reserpine, cryst., bots gram. 12.00 - —
Resorcinol, tech. grade, dms., c.l., works lb. 77½- —
l.c.l., works lb. .78½- —
USP, cryst., dms., works lb. 2.75 - —
powd., dms., works lb. 2.95 - —
Monoacetate, NF, dms lb. 3.00 - 3.25
Rhatany root, bgs lb. 15 - 16
Rhodinol, 5-lb. cans lb. 25.50 - 34.00
Rhubarb root, India, whole, bgs. lb. 1.75 Nom.
powd., bbls lb. 2.50 Nom.
Riboflavin, USP, bots., dlvd kilo. 100.00 - —
readily soluble, bots., dlvd kilo. 130.00 - —
5'-phosphate-sodium, 100-kilo lots or more kilo. 140.00 - —
Rochelle salt (see Potassium-sodium tartrate).
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works, 100% basis lb. 10.00 - —
resin, 25-45%, fib. dms., works, 30% basis lb. 3.00 - —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03 - —
ton lots, same basis lb. .04 - —
Rutin, NF, fib dms. 25-kilo lots, kilo. 17.50 - 18.50
10 to 25-kilo lots kilo. 17.50 - 20.00
1 to 10-kilo lots kilo. 18.90 - 20.00
Ryania, 100% powd., bgs., c.l., works. lb. .22 - —
l.c.l., same basis lb. .24 - —

S

Sabadilla seed, powd., bbls lb. .49 - .49½
activated, ground with lime, bbls lb. .30 - .32
Saccharin, USP, cryst., soluble, dms., 1000-lb lots lb. 1.60 - —
smaller lots lb. 1.70 - 1.80
powd., soluble, insoluble, dms., 1000-lb. lots lb 1.65 - —
smaller lots lb. 1.75 - 1.95
Saffron, Spanish, USP, tins lb. 35.00 - 40.00
Safrol, dms lb. 1.60 - —
Sage, Cretan, bgs lb. .11 - —
Dalmatian, bgs. lb. .40 - —
Italian, bgs. lb. .13 - —
Sago flour, raw, bgs lb. .06½- .06¾
refd., bgs lb. .08¼- .08¾
Sal soda (see Soda sal).
Salol, NF, gran., bbls., kgs lb. 1.10 - —
Powdered salol, 25c. higher
Salt, rock, paper bgs., c.l. 100 lbs. .80 - —
table, vacuum, common, fine, paper bgs., c.l 100 lbs. 1.12 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton 28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, East Indies, chips bgs. .65 - .66
powd., fib. dms lb. .75 - .76
Sanguinarine nitrate, bots oz. 4.75 - 5.50
Sarsaparilla root, imp., Honduras, bls lb. .65 Nom.
Mexican, bls lb. .65 Nom.
Sassafras root bark, ord., bls lb. .45 - —
select, bbls. lb. .65 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .95 - —
powd., bgs., frt. alld lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 10.25 - 11.50
Seidlitz mixture, bbls., 5,000-lb. lots lb. .30½- —
smaller lots lb. 31 .32
Selenium, powd., dms., dlvd lb. 6.00 - 7.25
Senega root, bls lb. 3.50 - 3.60
Senna leaves, Alex., whole and half, bls lb. .19 - —
siftings lb. .17 - —
Tinnevelly, No. 1, bls lb. .16 - .18
No. 2, bls. lb. .13 - .15
No. 3, bls. lb. .11 - .13
powdered, bbls., bxs lb. .18 - —
pods, bls. lb. .14 - —
Serpentaria root, bls lb. 4.95 - —
Sesame seed, Nicaragua, hulled, shipt., bgs. lb. .24 - —
nat., bgs lb. .17 - —
Salvadorian, natural lb. .16½- —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .60 - —
bbls., 1,500-lb. lots lb. .62 - —
kgs., 1,500-lb. lots lb. .63 - —
refd., bgs., 1,500-lb. lots lb. .68 - —
bbls., 1,500-lb. lots lb. .70 - —
kgs., 1,500-lb. lots lb. .71 - —
Bonedry shellac prices for less than 1,500 lb. lots 1c. per lb. higher for all packages.
Lemon, No. 1, bgs., 10-bg. lots lb. .60 - .61
No. 2, bgs., 10-bag lots lb. .58 - .59
Superfine, bgs., 10-bag lots lb. .56 - .57
TN, bgs., 10-bag lots lb. .55 - .56
Shellac in 1 to 10 bg. lots 1c. per lb. more.
Shingle stain oil (see Oil, shingle stain).
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton 25.00 - —
l.c.l., works ton 30.00 - 40.00
hard-quartz, 99½, 325 mesh, bgs, c.l., works ton 20.00 - —
l.c.l., works ton 25.00 - 30.00
140 mesh, bgs., c.l., works. ton 15.00 - —
l.c.l., works ton 20.00 - —

You build it right from the resin . . . without special equipment!

ODORLESS WALL PAINT with EPON® RESIN

Take this opportunity to add a high-quality flat to your line . . . using your present open or closed kettles

Starting with new Epon resin formulations, you can make a flat wall paint to meet your own requirements. You need no new techniques . . . no special equipment. Oil content and type may be varied. You may control the viscosity of your vehicle within a wide range. You have complete knowledge of all raw materials.

And there is big news on the quality side, also. Your Epon resin-based paint will have excellent adhesion, good leveling qualities, uniform one-coat coverage, unlimited range of colors, good holdout and superior washability . . . a many-ways-better paint which may give you a price advantage, too!

Write today for the technical bulletin SC:54-63, "Epon resin Odorless Architectural Paint Vehicles A-300 and A-301." *Be the first in your area* to take advantage of this new Shell Chemical development.

EPON resins are the epoxy polymers made exclusively by Shell Chemical Corporation. We do not supply either a paint vehicle or finished paints.

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IN CANADA: Chemical Division, Shell Oil Company of Canada, Limited • Montreal • Toronto • Vancouver

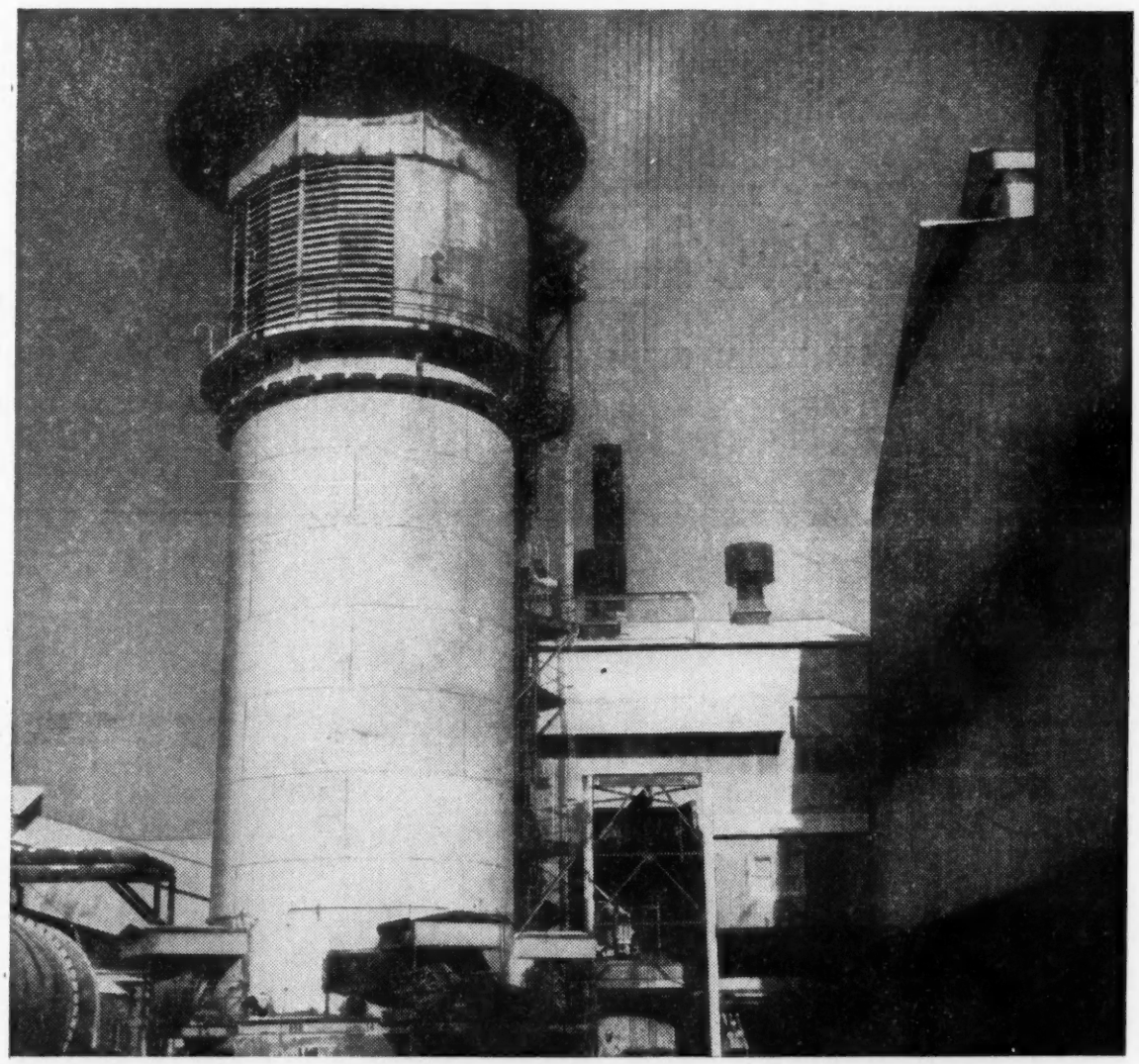
Silicon tetrachloride, tech., dms., c.l., works lb. .16 - —
l.c.l., works lb. .20 - .28½
Silver bullion, ingots, cs Troy oz. .87 - —
Cyanide, fib. dms., 2,500-oz. lots. oz. .78¾ -
1,000-oz. lots oz. .78¾ - —
500-oz lots oz. .79⅛ - —
100-oz. lots oz. .79⅜ - —
Nitrate, CP, cryst., fib., dms., 20,000-oz lots oz. .54⅜ - —
2,500-oz. lots, bots oz. .55¾ - —
1,000-oz. lots, bots oz. .57 - —
500-oz. lots, bots oz. .57½ - —
250-oz. bots. oz. .58 - —
USP granular silver nitrate 4c. per oz. higher.
Proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.05 - —
strong, NF, bots., dms., 1,000-oz. lots oz. 1.00 - —
Soapbark, whole, bls lb. .45 - —
crushed, bls., bbls lb. .55 - —
powd., bbls. lb. .55 - —
Soda ash, dense, 58% paper bgs., c.l., works 100 lbs. 1.70 - —
l.c.l., stock points 100 lbs. 2.80 - 4.57
bbls. c.l., works 100 lbs. 2.30 - —
l.c.l., stock points 100 lbs. 3.35 - 4.12
bulk, c.l., works 100 lbs. 1.40 - —
light, 58%, paper bgs., c.l., works 100 lbs. 1.65 - —
l.c.l., stock points 100 lbs. 3.75 - 4.52
bbls., c.l., works 100 lbs. 2.20 - —
l.c.l., stock points 100 lbs. 3.25 - 5.52
bulk, c.l., works 100 lbs. 1.35 - —
Caustic, flake, powd., 76% dms., c.l., works, frt. equald 100 lbs. 4.25 - —
l.c.l., stock points 100 lbs. 5.45 - —
liq., 50%, sellers, tanks, works, dry basis 100 lbs. 2.70 - —
rayon-type, sellers' tanks, works, dry basis 100 lbs. 2.70 - —
70%, sellers' tanks, works, dry basis 100 lbs. 2.80 - —
rayon-type, sellers' tanks, works, dry basis 100 lbs. 2.80 - —
solid, 76%, dms., c.l., works 100 lbs. 3.85 - —
l.c.l., stock points 100 lbs. 5.05 - —
Sal., bgs., c.l., works 100 lbs. 1.40 - —
l.c.l., works 100 lbs. 1.70 - —
Sodium acetate, anhyd., bgs., c.l., works lb. .12 - —
dms., c.l., works lb. .12¾ - —
NF, 60%, gran., dms., c.l., works lb. .12½ - —
dms., l.c.l., works lb. .14 - —
Alginate, NF, white powd., dms., ton lots, works lb. .87 - 1.30
refd., bbls., works lb. .83 - —
p-Aminobenzoate, dms., 1,000-lb. lots or more lb. 2.40 - —
smaller lots lb. 2.45 - 2.50
p-Aminosalicylate, dms., 1,000-lb. lots or more, frt. adjusted lb. 3.75 - —
smaller lots, same basis lb. 3.80 - 4.25
Antimoniate, bbls., c.l., dlvd. E lb. .29 - —
l.c.l., dlvd E lb. .30½ - —
Arsenate, dms., c.l., works lb. .12½ - —
l.c.l., works lb. .13¾ - .14¾
Arsenite, dms., c.l., works lb. .13½ - —
l.c.l., works lb. .14½ - .15½
soln., dms., works gal. .70 - 1.10
Ascorbate, dms., 25-50 kilo lots. kilo. 16.00 - —
10-kilo lots kilo. 16.35 - —
5-kilo lots kilo. 16.75 - —
1-kilo lots kilo. 17.00 - —
bots, 500-gram lots kilo. 17.50 - —
Benzoate, tech., bbls., dms., 100-lb lots or more lb. .39 - —
USP, bbls., dms. 100-lb. lots. or more lb. .46 - —
Bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.70 - —
l.c.l., works 100 lbs. 3.70 - —
powd., bgs., c.l., works 100 lbs. 2.30 - —
l.c.l., works 100 lbs. 3.30 - —
Bichromate, bgs., c.l., works lb. .11½ - —
l.c.l., works lb. .12 - .13¼
Bifluoride, bbls., c.l., works, frt. equaled lb. .17½ - —
l.c.l., same basis lb. .1790 - —
Bisulfate, bulk., c.l., works 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
l.c.l., frt. equald 100 lbs. 3.50 - 4.10
Bisulfite, anhyd., bgs., c.l., works, 100 lbs. 4.50 - —
l.c.l., works 100 lbs. 4.90 - —
soln., 35°, bbls., c.l., works, 100 lbs. 1.55 - —
l.c.l., works 100 lbs. 2.05 - —
Borate (see Borax).
Bromide, USP, bbls., works lb. .35 - —
Carbonate, annyd. (see Soda ash).
cryst., monohydrated (see Soda, sal).
monohydrated bgs., c.l., works. 100 lbs. 2.90 - —
l.c.l., works 100lbs. 3.30 - —
Carboxymethyl cellulose (see CMC).
Chlorate, cryst., dms., c.l., works lb. .08¾ - —
l.c.l., works lb. .10¼ - .11
Chloride, tech. (see Salt).
USP, bgs. lb. .05 - .12
Chlorite, tech., dms., c.l., works. lb. .58 - —
20-ton lots or more, works. lb. .66 - —
smaller lots, works lb. .70 - .73
Chloroacetate, tech., dms., c.l., works lb. .27 - —
l.c.l., works lb. .28 - —
Chromate, dms., c.l., works lb. .13¼ - —
l.c.l., same basis lb. .13¾ - .15
Citrate, anhyd., dms. lb. .60 - .65
NF VIII, gran., dms lb. .26 - .30¼
USP, XVI gran., dms lb. .29½ - .34
Sodium citrate, USP, powd. prices ½c. higher.
Cyanate, dms., 1,000-lb. lots, works lb. .85 - 1.10
smaller lots, works lb. 1.00 - 1.25
Cyanide flake, 96-98%, dms., c.l. or 20,000-lb. lots lb. .178 - —
over 1,000-lb. lots lb. .188 - —
100-lb. to 1,000-lb. lots lb. .198 - —
Granular sodium cyanide 1c. higher.
Diacetate, 33-35% acidity, 250-lb. dms., works lb. .14 - —
l.c.l., works lb. .14¾ - —
anhyd., dms., c.l., works lb. .17 - —
l.c.l., works lb. .17¾ - —
Dichromate (see Sodium bichromate).
Ferrocyanide, bgs., 10-ton lots lb. .13½ - —
smaller lots lb. .14 - —
Fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1250 - —
l.c.l., works lb. .1290 - —
Formate, bgs., c.l., dlvd. E 100 lbs. 7.60 - —
l.c.l., works 100 lbs. 8.65 - —
Gentisate, 100-lb. fib dms lb. 8.50 - —
Gluconate, refd., dms. lb. .80 - .83
tech., dms lb. .35 - —
Glutamate, mono-, dms., c.l. lb. 1.55 - —
Glycerophosphate, NF, cryst., bbls. lb. 2.10 - 2.25
powd., bbls lb. 2.15 - 2.30
soln., 75%, cbys. lb. 1.45 - 1.60
Hydride, dms., works lb. 1.80 - 3.00
Hydrosulfide (see Sodium sulfhydrate).
Hydrosulfite, dms., c.l., frt. alld lb. .20 - —
l.c.l., frt. alld lb. .20½ - —

Sodium hydroxide, tech. (see soda caustic).
NF, pellets, 100-lb dms., 1 to 100-dm. lots lb. .18½ - .23
Hypophosphite, NF, dms., ton-lots or less lb. .95 - .98
Hyposulfiite, USP (see Sodium thiosulfate).
pea crystals, bgs 100 lbs. 4.50 - —
gran., bgs., c.l., works 100 lbs. 4.75 - 5.00
photo grade, bgs., c.l., works, 100 lbs. 4.50 - 4.75
l.c.l., works 100 lbs. 5.00 - 5.03
tech., bgs., works lb. 4.50 - —
l.c.l., works 100 lbs. 4.90 - 6.90
Sodium hyposulfite crystals in bbls., 50c. higher.
Iodide, USP, bots., dms lb. 2.80 - 2.92
Lactate, edible, 50%, cbys., dms., works lb. .21½ - —
60% cbys., dms., works lb. .26½ - —
tech., 50%, cbys., dms., works, lb. 16¼ - —
Lauryl sulfate, dms., c.l., dlvd lb. .22 - —
l.c.l., dlvd lb. .23 - —
tanks, dlvd lb. .20 - —
Metabisulfite (see Sodium bisulfite).
Metaborate, octahydrate, gran., bgs., c.l., works ton. 78.50 - —
l.c.l., ex whse ton. 124.50 - 129.50
Sodium metaborate, octahydrate in bbls., $24.50 per ton higher.
Tetrahydrate, bbls., c.l., works. ton. 199.50 - —
Metallic, bricks, 14,000 lb. or more, works lb. .17 - .19
less than 14,000 lb. lots, works. lb. .175 - .195
tanks, works lb. .16 - —
Metanilate, bbls., frt. alld lb. .62 - —

Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.10 - —
l.c.l., works 100 lbs. 5.45 - 7.35
dms., c.l. 100 lbs. 5.50 - —
l.c.l. 100 lbs. 5.85 - 7.75
Pentahydrate, bgs., c.l., works, 100 lbs. 4.10 - —
l.c.l., works 100 lbs. 4.45 - 6.35
dms., c.l., works 100 lbs. 4.50 - —
l.c.l., works 100 lbs. 5.10 - 5.85
Molybdate, bbls., cbys., works lb. .85 - .95
anhyd., powd., dms., works lb. .85 - .92
cryst., dms., works lb. .70 - —
Monohydrate (see Sodium carbonate, monohydrated).
Naphthionate, bbls lb. .70 - —
Nitrate, crude, dom., bgs., c.l., works ton. 47.00 - —
bulk, c.l., works ton. 43.50 - —
imp., 100-lb. bgs., c.l., Atl. Gulf, Pac., whse ton. 51.25 - —
bulk, c.l., same basis ton. 47.75 - —
Nitrite, USP, bbls., c.l., works, frt. equaled lb. .08 - —
l.c.l., same basis lb. .09½ - —
Orthosilicate, conc., dms., c.l., works 100 lbs. 6.00 - —
l.c.l., works 100 lbs. 6.35 - 6.75
hydrated, flake, bbls., c.l., works. 100 lbs. 5.25 - —
l.c.l., dlvd 100 lbs. 7.00 - —
Oxalate, 88%, bgs., works 100 lbs. 10.85 - —
Para-aminobenzoate (see sodium p-Aminobenzoate).
Para-aminosalicylate (see Sodium p-Aminosalicylate).

Sodium pentachlorophenate, briquets, bgs., c.l., works, frt. equald lb. .25½ - —
l.c.l., same basis lb. .26¾ - .28½
pellets, bgs., c.l., same basis lb. .25 - —
l.c.l., same basis lb. .26 - .28
powd., bgs., dms., c.l., same basis lb. .24 - —
l.c.l., same basis lb. .25½ - .32
Pentachlorophenate, 20,000 lbs. min. truckloads, ¼c per lb. over carlot prices.
Perborate, NF, tech., bgs., c.l., works lb. .173 - —
l.c.l., works lb. .178 - —
Peroxide dms. c.l. dlvd. E. of Miss lb. .1950 - —
l.c.l. same basis lb. .1910 - .1960
Phenolsulfonate, USP IX, gran., dms lb. .44 - .45
powd. dms lb. .47 - .48
Phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 7.45 - —
l.c.l. works 100 lbs. 7.85 - —
USP, dried powd. bgs., dms., works lb. .19 - .20½
monobasic, anhyd., bgs., c.l., frt. equald 100 lbs. 8.45 - —
l.c.l., frt. equald 100 lbs. 8.90 - —
duohydrate, bgs., c.l., frt. equald 100 lbs. 7.95 - —
l.c.l. frt. equald 100 lbs. 7.25 - —
tribasic, cryst., bgs., c.l., frt. equald 100 lbs. 4.20 - —
l.c.l. frt. equald 100 lbs. 4.60 - —
Sodium phosphates in dms., 60c. higher than bgs.
Prussiate, yellow (see sodium ferrocyanide)

Silicon Tetrachloride—Sodium Prussiate



Mathieson Nitrate of Soda: *prilled to pour*

A significant advance in the production of nitrate of soda is Mathieson's prilling process. In the above prill tower, the Mathieson product is finished in the form of tiny, hollow beads that remain free-flowing and resist caking even when shipped in bulk in hopper cars. As a result, Mathieson nitrate of soda can be unloaded quickly and easily and stored without setting-up, thereby cutting handling costs for glass, ceramic, explosives, and chemical producers.

Throughout industry, chemical buyers look to Mathieson's modern production methods to supply them with the top-quality raw materials they need. In addition, they get the protection of multi-plant facilities . . . 3 alkali plants, 5 chlorine plants, 6 caustic soda plants, 7 sulphuric acid plants, 3 ammonia plants . . . and practical technical service with materials handling and application problems.

When planning current or future chemical requirements, call on Mathieson. Perhaps you can buy to better advantage from one of America's largest producers of basic industrial chemicals.

MATHIESON CHEMICALS
OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.

2760

MATHIESON

CAUSTIC SODA • SODA ASH • CHLORINE • SULPHURIC ACID • SULPHUR • AMMONIA • NITRATE OF SODA • BICARBONATE OF SODA • NITRIC ACID • SULPHATE OF ALUMINA • SODIUM CHLORITE PRODUCTS
ETHYLENE OXIDE • ETHYLENE GLYCOL • DIETHYLENE GLYCOL • TRIETHYLENE GLYCOL • POLYGLYCOLS • DICHLORDETHYLETHER • ETHYLENE DICHLORIDE • METHANOL • SODIUM METHYLATE • ETHYLENE DIAMINE

Sodium Pyrophosphate—Sulfathiazole-Sodium

Sodium pyrophosphate, acid, bgs., c.l., works, frt. equald 100 lbs. 10.75 - —
ferric, dms., 1,500-lb lots, works. lb. .31 - —
smaller lots, works lb. .32 - —
tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.37½- —
l.c.l., frt. equald 100 lbs. 7.77½- —
Salicylate, USP, dms. lb. .68 - .71
Sesquicarbonate, bgs., c.l., works. lb. 2.10 - —
l.c.l., dlvd., zone 1 100 lbs. 3.85 - 4.10
zone 2 100 lbs. 4.10 - 4.35
Sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 4.60 - —
l.c.l., works 100 lbs. 4.95 - 5.35
dms., c.l., works 100 lbs. 5.00 - —
l.c.l., works 100 lbs. 5.35 - 5.75
zone 3 100 lbs. 4.40 - 4.65
zone 4 100 lbs. 5.10 - 5.35

Sales zones are: (1) All States E. of Miss. R. and N. of south bound. of Ky. and Va.; Ala., La., and Miss., south of 31° Tex E. of 100°; S. of 31° Fla.; also Me., N. H., and Vt., in which there are special county zones; Davenport, Ia. and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport), Minn.; Mo. (except St. Louis), Neb., E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98°; N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo., and El Paso, Tex.

Sodium silicate, liq., 40° Be, 1:3.2, turbid, dms., c.l., works 100 lbs. 1.35 - —
l.c.l., works 100 lbs. 1.70 - 2.20
tanks, works 100 lbs. 1.00 - —
47° Be, turbid, 1:2.9, dms., c.l., works 100 lbs. 1.95 - —
l.c.l., dms., works. 100 lbs. 2.55 - 2.80
tanks, works 100 lbs. 1.60 - —
52° Be, turbid, 1:2.4, dms., c.l., works 100 lbs. 2.30 - —
l.c.l., works 100 lbs. 2.65 - 3.15
tanks, works 100 lbs. 1.95 - —
solid, 1:3.2, bgs., works ton. 57.50 - —
Silicofluoride, bgs., c.l., works lb. .07 - —
l.c.l., works lb. .07 - .08
Sodium silicofluoride in dms., 4/10c. higher.
Stannate, dms., works, frt alld. E lb. .539 - .593
Sulfa drugs (see Sulfa name).
Sulfanilate, bbls., works lb. .22 - —
Sulfate, NF, VII, dried, powd., dms lb. .22½- —
tech., anhyd., bgs., c.l., dlvd., E ton. 52.00 - —
detergent grade, bgs., c.l., works ton. 34.00 - —
rayon grade, bgs., c.l., works. ton. 31.00 - —
USP, cryst., fib. dms lb. .17½- .18
gran., fib. dms lb. .17½- .18
Sulfide, flake, dms., c.l., works, E., frt. equald lb. .05¼- —
l.c.l., same basis lb. .05¾- —
fused, bbls., c.l., works, E., frt. equald lb. .04¾- —
l.c.l., same basis lb. .05¼- —

Sodium sulfite, anhyd., bgs., c.l., 100 lbs. 3.00 - —
l.c.l., same basis 100 lbs. 3.50 - —
powd., bbls., c.l., works 100 lbs. 7.25 - —
l.c.l., works 100 lbs. 7.50 - —
Sulfhydrate, flake, 70-72%, dms., c.l., works lb. .06½- —
l.c.l., works lb. .07 - —
liq., 40-44%, tanks, works, 100% basis ton. 110.00 - —
Sulfocyanide, CP, (see Sodium thiocyanate).
Tetraborate (see Borax).
Tetrasulfide, liq., 40%, dms., c.l., works lb. .03½- —
l.c.l., works lb. .04 - —
Thiocyanate, CP, dms. lb. .55 - .65
tech., anhyd., 1 ton lots or more, works lb. .317 - —
less than ton lot, works lb. .337 - —
tech., dms., works lb. .377 - —
Thiosulfate, NF, cryst., bbls lb. .12½- —
tech. (see Sodium hyposulphite).
Titanate, ctns., c.l., works lb. .10½- —
5-ton lots, works lb. .10¾- —
1-ton or less, works lb. .11 - —
Toluene sulfonate, dms., c.l., or t.l. lb. .38 - —
l.c.l. lb. .42 - —
Trichloracetate, 90%, 100-lb. dms., c.l., frt. alld. E lb. .37½- —
l.c.l., frt. adjusted, E lb. .39½- —
50 lb. dms., c.l., frt. alld E. lb. .38 - —
l.c.l., frt. adjusted E lb. .40 - —
10-lb. cns., c.l., frt. alld. E. lb. .44 - —
l.c.l., frt. adjusted E lb. .46 - —

Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 7.72½- —
l.c.l., same basis 100 lbs. 8.12½- —
Trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.65 - —
l.c.l., works 100 lbs. 9.40 - 9.80
dms., c.l., works 100 lbs. 9.05 - —
l.c.l., works 100 lbs. 9.80 - 10.20
Tungstate, tech., kgs., dlvd. E lb. 1.80 - —
Sodium-ammonium phosphate, bbls., works, frt. equald lb. .23 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium-formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 - —
l.c.l., same basis lb. .21½- —
Sodium-zirconyl sulfate, fiber dms., 1,000-lb lots or more works lb. .28 - —
smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high flash, tanks, works gal. .31 - .35
petroleum (see Petroleum solvent, partial aromatic).
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works lb. .32 - —
10,000 to 20,000-lb. lots, works, lb. .34 - —
smaller lots, works lb. .37 - .39
Tristearate, fib. dms., 20,000-lb. lots, works lb. .33 - —
10,000 to 20,000-lb. lots, works, lb. .35 - —
smaller lots, works lb. .38 - .40
Sorbitol, cryst., pellets, dms., c.l., works lb. .30 - —
1 to 5-ton lots, works lb. .32 - .33
powd., dms., 1 to 5-ton lots, works, lb. .38 - .39
soln., coml., aqueous, dms., c.l., works lb. .24¼- —
ton lots, works lb. .25 - —
smaller lots, works lb. .25¼- —
tanks, works lb. .23¼- —
reg., 70%, aqueous dms., c.l., works lb. .16 - —
ton lots, works lb. .16¾- —
smaller lots, works lb. .17 - —
tanks, works lb. .15 - —
Soybean meal, 44%, bulk, Decatur ton. 59.00 - 60.00
protein, chemically isolated, bgs., c.l., works lb. .23 - —
mechanically refd., bgs., c.l., works lb. .06 - —
Sparteine sulfate, cns. oz. .80 - .85
Spearmint leaves, dom., bls lb. .75 - —
imp., bls lb. 1.25 - —
Spruce, extract, liq., reg. tanks, works lb. .01¾- —
powd., super, bgs., c.l., works. lb. .05¼- —
l.c.l., works lb. .05½- —
Squill, white, bls lb. .17 - .19
powd., bbls., bxs lb. .18 - .21
St John's bread, edible, bls lb. .13 - .15
Stannic chloride, anhyd., dms., works lb. .752 - .762
Oxide, dms., dlvd. E lb. .93½- .94½
Stannous chloride, anhyd., dms., works lb. .805 - 1.074
Hydrous (crystals), dms., works. lb. .76 - .77
Sulfate, dms., works lb. .924 - .944
Starch, corn, pearl, paper bgs., c.l. 100 lbs. 7.14 - —
l.c.l. 100 lbs. 7.29 - —
powd., paper bgs., c.l. 100 lbs. 7.26 - —
l.c.l. 100 lbs. 7.41 - —

Prices for corn starch in cotton bags, 25c. per 100 lbs. higher.

Potato, dom., Idaho, bgs., c.l., works lb. .06¾ Nom.
Maine, bgs., c.l., works lb. .07¼- —
l.c.l., spot lb. .08¾- .09
Rice, bgs., l.c.l. lb. .15½- .16
Wheat, bgs. lb. .0755- .0780
Star root (see Helonias root).
Stargrass Root (see Aletris root).
Stavesacre seed, bgs lb. .60 - .61
Stearine oleo (see Oleostearine.)
Stomach substance, not USP, 100-lb. fib. dms lb. 2.80 - —
Stramonium leaves, bgs lb. .18 - .20
Streptomycin hydrochloride, bulk, gram. .10 - —
gram. .10 - —
Strontium bromide, NF, cns., dms. lb. .77 - .78
Carbonate, pure, dms., 5-ton lots or more, works lb. .35 - —
1-ton lots, works lb. .37 - —
tech., dms., works lb. .19 - —
Chromate, bbls., works lb. .46 - —
Iodide, jars, 25-lb. lots lb. 3.42 - —
Nitrate, bbls., c.l., works 100 lbs. 11.00 - —
l.c.l., works 100 lbs. 12.00 - —
Salicylate, NF, dms lb. 1.65 - —
Sulfate, air floated, 90%, 325 mesh, bgs., works ton. 56.70 - 66.15
Strophanthin, K, bots oz. 25.00 - 25.50
G, (see Ouabaine, USP).
Strophanthus seed, Kombi, biologically tested, bgs lb. 3.50 - 3.75
Styrax, USP, cs lb. .78 - .80
Strychnine, NF, powd., cns., 100-oz. lots oz. 1.10 - —
Phosphate, NF, cns., 100-oz. lots oz. 1.14 - —
Sulfate, USP, cryst., cns., 25-oz. lots oz. .96 - —
powd., 100-oz. lots oz. .85 - —
Styrene monomer, polymer grade, 99½%, dms., c.l., frt. equald. lb. .22¼- —
l.c.l., same basis lb. .23¼- —
tanks, same basis lb. .21 - —
synthetic rubber grade, 99%, dms., c.l., frt. equald lb. .19¼- —
l.c.l., same basis lb. .20¼- —
tanks, same basis lb. .18 - —
Styrolyl acetate, bots lb. 1.45 - 1.70
Sucrose, crude, bgs., works lb. .0528- —
refd., white, bgs., refy., E lb. .0855- —
Octa-acetate, denaturing grade, 100-200-lbs., bgs., l.c.l., works. lb. .76 - —
Sugar, raw (see Sucrose, crude).
Sulfabenzamide, dms. lb. 4.00 - 4.50
Sodium, dms lb. 4.10 - 4.60
Sulfacetamide, fib. dms lb. 4.00 - 4.20
Sodium, fib. dms lb. 5.00 - 5.20
Sulfadiazine, USP, microcrystals, dms lb. 10.60 - 11.10
powd., dms lb. 10.25 - 10.75
Sulfadiazine-sodium, USP, dms lb. 11.25 - 11.75
microcrystals, dms lb. 10.60 - 11.10
Sulfaguanidine, USP, dms lb. 2.50 - —
Sulfamerazine, USP, microcrystals. lb. 10.65 - 11.15
Sulfamerazine-sodium, USP, dms., lb. 11.25 - 11.75
Sulfamethazine, microcrystals, dms., lb. 8.90 - 9.40
powd., dms lb. 1.30 - 1.50
Sulfanilamide, USP, 30-80 mesh., dms lb. 1.40 - 1.60
microcrystals, dms. lb. 1.70 - 1.90
powd., dms lb. 8.50 - 9.00
Quinoxaline, veterinary, dms lb. 6.40 - 6.75
Sulfapyridine, NF, powd., bots., tins. lb. 7.00 - 7.50
Sulfapyridine-sodium, monohydrate, dms lb. 7.50 - 8.00
Sulfathiazole, USP, microcrystals, dms lb. 2.85 - 3.00
powd., dms lb. 2.50 - 2.65
Sulfathiazole-sodium, USP., dms lb. 2.75 - 2.90

BAIRD Chemicals for Industry

MANY IMPORTERS OVERSEAS
CHANGE TO *Baird* CHEMICAL
...BUT FEW EVER CHANGE AGAIN

Baird
CHEMICAL CORPORATION
NEW YORK 1, N. Y.

MANUFACTURERS
IMPORTERS
EXPORTERS

Sulfur, coml., flour, bgs., mines, bbls., mines ..... 100 lbs. 3.05 - —
100 lbs. 2.30 - —
lump, bgs., mines ..... 100 lbs. 2.20 - —
bbls., mines ..... 100 lbs. 2.65 - —
crude, bulk, c.l., mines, contract ..... long-ton 26.50 - —
export, f.o.b. vessels, Gulf ports long-ton 31.00 -33.00
domestic and Canada, f.o.b. vessel Gulf port long-ton 28.00 -29.50
refd., flowers, USP, bgs., mines ..... 100 lbs. 4.00 - —
bbls. ..... 100 lbs. 5.25 - —
flour, light, bgs., mines ..... 100 lbs. 3.60 - —
bbls., mines ..... 100 lbs. 4.50 - —
lump, bgs., mines ..... 100 lbs. 3.30 - —
rolls, bgs., mines ..... 100 lbs. 3.85 - —
bbls., mines ..... 100 lbs. 4.40 - —
salt block, bgs., mines 100 lbs. 3.50 - —
virgin block, bbls., mines ..... 100 lbs. 3.45 - —
rubbermakers, coml., reg., bgs., mines 100 lbs. 2.40 - —
bbls., mines 100 lbs. 3.55 - —
98-100% passing through 325 mesh, bgs. mines 100 lbs. 3.50 - —
bbls., mines ..... 100 lbs. 3.65 - —
refd., bgs., mines ..... 100 lbs. 3.25 - —
bbls., mines ..... 100 lbs. 4.30 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.70 - —
bbls., mines 100 lbs. 3.85 - —
10% pine tar, bgs., mines. 100 lbs. 3.90 - —
Dichloride, dms., c.l., works, frt. equaled lb. .03¾- —
l.c.l., same basis ..... lb. .04½- —
tanks, same basis ..... lb. .03½- —
Dioxide, liq., coml., cyls., works, frt. equald lb. .10 - .12
multi units cars, works lb. .0535- —
tanks, works ..... lb. .045 - —
refrigeration cyls., dlvd ..... lb. .27 - —
Monochloride 55-gal., dms., c.l. frt. equald lb. .03¾- —
l.c.l., same basis ..... lb. .04½- —
tanks, same basis ..... lb. .03½- —
Sumac leaves, 28%, bgs., ex-dock, ton. 132.00 - —
ground, bgs., ex-dock ..... ton. 127.00 - —
Superphosphate, run-of-pile, under 22% a.p.a. pulv., bulk, c.l., Balto., unit-ton. .88 - .91
Carteret, N. J. ..... unit-ton. .88 - .91
Triple, 46% or more, a.p.a. pulv., bulk, c.l., East Tampa, Fla. unit-ton. .98 - —

T

2,4,5-T, dms., c.l., works, frt. equald. lb. 1.25 - —
l.c.l., same basis ..... lb. 1.30 - 2.30
isopropyl, ester, dms., c.l., works, frt. equald lb. 1.30 - —
l.c.l., works ..... lb. 1.35 - —
Talc, dom., ord., Calif., grd., bgs., c.l., works ton. 32.00 -38.50
Vermont off color grd., bgs., c.l., works ton. 18.40 - —
l.c.l., works ..... ton. 36.00 - —
fibrous, New York, grd., bgs., c.l., works ton. 27.00 -32.00
l.c.l., works ..... ton. 30.00 -35.00
99.5%, 325 mesh, bgs., c.l., works. ton. 30.00 - —
l.c.l., works ..... ton. 33.00 - —
99.95% micronized, bgs., works ton. 37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton. 20.00 -35.00
Tallow, edible, tanks, dlvd ..... lb. .10¾- —
inedible, extra, tanks, dlvd. lb. .07¼- —
fancy, bleachable, tanks, dlvd. lb. .07½- —
No. 1, tanks, dlvd ..... lb. .06¾- —
special, tanks, dlvd ..... lb. .07 - —
sulfonated, 25%, bbls., l.c.l. lb. .07¾- .08
50% bbls., l.c.l. ..... lb. .09 - .10¾
Tankage, animal, feeding, 9-11% ammonia, bulk unit-ton. 5.00 - —
Chicago ..... unit-ton. 5.25 - —
Tapioca flour Brazilian, ex whse, bgs lb. .03¼- .09
Siamese, top grade, ex whse lb. .07½- .07¾
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .47 - .49
l.c.l., same basis ..... gal. .50 - .51
tanks, same basis ..... gal. .39 - —
25-28%, dms., c.l., same basis. gal. .54 - .56
l.c.l., same basis ..... gal. .57 - .58
tanks, same basis ..... gal. .46 - —
50-53%, dms., c.l. same basis. gal. .70 - .72¼
l.c.l., same basis ..... gal. .73¼- .74½
tanks, same basis ..... gal. .62½- —
Coal (see Coaltar).
Tartar, emetic (see Antimony-potassium tartrate).
Terpine glycol ether, dms., c.l., works lb. .23½- —
l.c.l., works ..... lb. .25½- —
tanks, works ..... lb. .22 - —
Hydrate, NF, cryst., powd., fib. dms. lb. .67½- .74
a-Terpineol, dms., l.c.l., dlvd. E lb. .19 - —
Terpineol, coml., dms., c.l., South. lb. .13½- —
l.c.l., South ..... lb. .14 - —
extra, dms ..... lb. .41 - .60
prime, dms ..... lb. .30 - .45
Terpinyl acetate, extra, cns., dms. lb. .60 - .75
prime, dms ..... lb. .55 - .70
Propionate, dms. ..... lb. 1.75 - 2.00
Terra alba, (see Gypsum).
Testosterone, USP, 100-gm. lots, bots. gram. .70 - —
Propionate, USP, 100-gm. lots, bots. gram. .68 - —
Tetrachloroethane, dms., works lb. .14½- —
Tetrachloroethylene, tech. (see Perchloroethylene).
USP, 55 gal. dms., works ..... lb. .20½- .21½
smaller dms., works ..... lb. .23½- .23
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .64 - —
l.c.l., dlvd. E ..... lb. .65 - —
Pyrophosphate, 40%, cns., dms., frt. equald lb. .69 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .57½- —
l.c.l., dlvd. E ..... lb. .58½- —
tanks, dlvd. E ..... lb. .56 - —
Tetrapotassium phosphate (see Potassium phosphate).
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Thallium metal, dlvd ..... lb. 12.50 -15.00
Sulfate, 99%, bots., dlvd ..... lb. 8.00 -12.00
Theobromine, NF, fib. dms ..... lb. 3.75 - —
And sodium acetate, USP, fib. dms lb. 4.05 - 4.10
Sodio-Salicylate, NF, fib. dms lb. 3.35 - 3.40
Theophylline, anyhd. or USP, 100-lb. dms lb. 3.65 - —
Thiamine hydrochloride, USP, regular or ampul-type, fib. dms. kilo. 100.00 - —
Mononitrate, USP, fib. dms. kilo. 100.00 - —
Thiocarbanilide, dms ..... lb. .50 - .52
Thiodiphenylamine (see Phenothiazine).
Thiourea, tech., dms., c.l., works lb. .40 - —
l.c.l., works ..... lb. .42 - —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 - —
dl-Threonine, bots., 1-kilo lots kilo. 450.00 -500.00
Thyme leaves, French, bgs ..... lb. .20 - —
Spanish, bgs. ..... lb. .09½- —
Thymol, fib. dms ..... lb. 2.50 - 2.65
Iodide, NF, dms ..... lb. 7.30 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhydrous).
crystals (see Stannous chloride, hydrous).
Metal (Straits) ..... lb. .91½- —
Oxide (see Stannic oxide).
Sulfate (see Stannous sulfate).
Tetrachloride anhyd. (see Stannic chloride, anhydrous)
Titanium dioxide anatase, chalk resistant, bgs, c.l., dlvd lb. .22½- —
l.c.l., dlvd. ..... lb. .23½- —
ceramic, bgs., c.l., dlvd ..... lb. .22½- —
l.c.l., dlvd. ..... lb. .23½- —
reg., bgs., c.l., dlvd ..... lb. .22½- —
l.c.l., dlvd ..... lb. .23½ —
Hydride cns., works ..... lb. 7.95 - 9.00
Metallurgical, nat., gran., bgs., c.l., f.o.b. Jacksonville, Fla. ton. .120 - —
Niagara Falls, N. Y. ton. 137.50 - —
5-ton lots, same basis. ton. 142.50 - —
ton lots, same basis. ton. 147.50 - —
Milled titanium dioxide $7.50 per ton higher.
rutile, non-chalking, bgs., c.l., dlvd E lb. .24½- —
l.c.l., dlvd E lb. .25½- —
Pigment, calcium-rutile base, bgs., c.l., dlvd. lb. .08⅜- —
l.c.l., dlvd lb. .08⅞- —
Tetrachloride, tech., dms., c.l., works lb. .40¾- —
l.c.l., works ..... lb. .43¾- —
tanks, works ..... lb. .39¾- —
dl-a-Tocopherol, bots ..... kilo. 149.65 - —
Acetate, bots ..... kilo. 136.00 - —
o-Tolidine base, dist., kgs ..... lb. 1.30 - —
Tolu balsam, cns. ..... lb. 4.25 - 4.50
Toluene (see Toluol).
p-Toluenesulfonamide, flake, dms., frt. alld lb. .64 - .66
powd., dms., works ..... lb. 70 - —
solid, dms., frt. alld ..... lb. .61 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .79 - —
l.c.l., same basis ..... lb. .80 - —
tanks, same basis ..... lb. .78 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .23 - —
l.c.l., same basis ..... lb. .24 - —
tanks, same basis ..... lb. .22 - —
p-Toluidine, flake, dms., frt. alld lb. .64 - —
solid, dms., frt. alld. lb. .60 - .61
Toluol, coaltar, indust or nitration, tanks, works:—
Bethlehem, Pa. ..... gal. .34 - —
Birmingham dist ..... gal. .32 - —
Chicago dist ..... gal. .35 - —
Cleveland dist ..... gal. .32 - —
Geneva, Utah ..... gal .26 - —
Johnstown, Pa. ..... gal. .32 - —
Lackawanna, N. Y. ..... gal. .35 - —
Lone Star, Tex ..... gal. .33 - —
Lorain, Ohio ..... gal. .32 - —
Middletown, Ohio ..... gal. .33½- —
Minnequa, Colo. ..... gal. .32 - —
Philadelphia district gal. .34 - —
Pittsburgh dist ..... gal. .32 - —
Sparrow's Point, Md gal. .34 - —
Terre Haute, Ind ..... gal. .35 - —
Youngstown, Ohio ..... gal. .32 - —
Toluol, petroleum, indust., 2° tanks, works:—
Albany, N. Y. ..... gal. .35 - —
Bayonne, N. J. ..... gal. .34 - —
Baytown, Tex. ..... gal. .33 - —
Chicago, Ill. ..... gal. .35 - —
Detroit, Mich ..... gal. .35 - —
Houston, Tex ..... gal. .35 - —
Philadelphia, Pa. ..... gal. .34 - —
Providence, R. I. ..... gal. .35 - —
Wood River, Ill ..... gal. .35 - —
2,4-Tolylenediamine, cryst., fib., dms. frt. alld lb. .94 - —
powd. same basis lb. 1.00 - —
Tonka beans, Angostura, cks ..... lb. 1.65 - 1.80
Brazilian, Surinam, cs ..... lb. 1.00 - 1.25
Totaquine, 100-oz. lots, cns ..... oz. .42 - —
Toxaphene, dms., c.l., t.l., works. lb. .20 - —
l.c.l., l.t.l., works ..... lb. .26 - —
Triacetin, dms., c.l., dlvd. E. of Rockies lb. .39 - —
l.c.l. same basis ..... lb. .40 - —
tanks, same basis lb. .37 - —
Tributyl citrate, tech., non-ret., dms., c.l., frt. alld. E. of Denver lb. .42 - —
l.c.l., frt. alld. E. of Denver. lb. .43 - —
tanks, frt. alld. E. of Denver. lb. .40 - —
Phosphate, dms., c.l., works lb. .52 - —
l.c.l. same basis ..... lb. .53 - —
tanks, same basis ..... lb. .50 - —
Tributylamine, dms., c.l., works lb. .67 - —
l.c.l., same basis ..... lb. .68 - —
tanks, same basis ..... lb. .65 - —

looking for **fast... low-cost** *degreasing?*

Try **ALL-PURPOSE** Nialk® **TRICHLOR**ethylene

Here's an ideal organic solvent for removing practically every kind of foreign matter from metal parts. Whether it's waxes, oils, greases, tars or metal chips, you'll find that Nialk TRICHLORethylene does the job safely, thoroughly and economically, leaving parts clean, warm and dry, ready for immediate assembly, inspection or surface treatment.

Nialk TRICHLORethylene is quick acting . . . it cleans and dries rapidly. Its low boiling range (86.6–87.8°C, based on standard ASTM tests) permits vaporization at low steam pressure. (And that narrow boiling range reflects its high purity.)

Cuts power consumption . . . Nialk TRICHLORethylene can be heated by gas, steam or electricity. Its specific heat is less than ¼ that of water. You'll get concentrated vapor at only 188°F.

Nialk TRICHLORethylene is thorough . . . its low viscosity (0.58 centipoises at 20°C) and low surface tension (about 29 dynes per cm at 30°C) give rapid wetting of surfaces, plus thorough diffusion into pores and relatively inaccessible openings.

Cuts vapor loss . . . (its vapor density is 4.5 times that of air). It is completely re-usable after distillation, has no flash point, no fire point and is classed as nonflammable at room temperature and only moderately flammable at higher temperatures.

A request, written on your company letterhead, will bring you a free copy of our Nialk TRICHLORethylene booklet.

NIAGARA ALKALI COMPANY

60 East 42nd Street
New York 17, New York

NIALK Liquid Chlorine • NIALK Caustic Potash • NIALK Carbonate of Potash
NIALK Paradichlorobenzene • NIALK Caustic Soda • NIALK TRICHLORethylene
NIAGATHAL® (Tetrachloro Phthalic Anhydride)

Trichlorobenzene—Wax, Microcrystalline, Amber

Trichlorobenzene, dms., c.l., works, frt. alld. E lb. .14½- —
l.c.l., frt. alld. E lb. .15½- —
tanks, frt. alld. E lb. .13 - —
Prices in the West 1¾c. higher.

Trichloroethylene, dms., c.l., or t.l., works, frt. equald lb. .11¼- —
l.c.l., dlvd. E lb. .13½- —
tanks, works, frt. equald lb. .10¼- —
Trichloroethane, dms., c.l., works lb. .13 - —
l.c.l., works lb. .13½- —
tanks, works lb. .11½- —
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted lb. 1.40 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 - —
l.c.l. dlvd. lb .36 - —
tanks, dlvd. lb. .33 - —
petroleum, dms., c.l., dlvd lb. .35 - —
l.c.l., dlvd. lb. .36 - —
tanks, dlvd. lb. .33 - —
Triethanolamine, dms., c.l., dlvd. E lb. .23½- —
l.c.l., same basis lb. .24½- —
tanks, same basis lb. .21½- —
Triethylamine, dms., c.l., works, dlvd. E lb. .47 - —
l.c.l., same basis lb. .48 - —
tanks, same basis lb. .45 - —
Triethyl citrate, tech., refd., nonret. dms., c.l., frt. alld. E. of Denver lb. .45¾- —
l.c.l., frt. alld. E. of Denver. lb. .46¾- —
tanks, frt. alld. E. of Denver. lb. .43¾- —
Phosphate, dms., c.l., works lb. .38 - —
l.c.l., same basis lb. .39 - —
tanks, same basis lb. .37 - —

Triethylene glycol, dms., c.l., dlvd. E. lb. .19¾- —
l.c.l., same basis lb. .20¾- —
tanks, same basis lb. .18 - —
Triethylenetetramine, dms., c.l., dlvd. E lb. .48½- —
l.c.l., dlvd. E lb. .49½- —
tanks, dlvd. E lb. .47 - —
Trimethylamine, 25-30% soln., dms., c.l., works, frt. equald., 100% basis lb. .42 - —
l.c.l., works, frt. equald, 100% basis lb. .42½- —
tanks, works, frt. equald, 100% basis lb. .33 - —
Tripentaerythritol, bgs. l.c.l. works. lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .39 - —
l.c.l., frt. equald lb. .40 - —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene glycol, dms., c.l., frt. alld. E. lb. .19¾- —
l.c.l. frt alld. E. lb. .20¾- —
Prices 1c. per lb. higher in West.
Trisodium fluoroacetate (see Sodium fuloroacetate, tribasic).
Phosphate (see Sodium phosphate tribasic).
Trypsin, pharmaceutical, 1:75, dms., works lb. 6.25 - —
dl-Tryptophane, fib. ctns., works. kilo.165.00 - —
Tungsten metal, powd., 98.8%, dms., dlvd lb. 4.35 - 4.40
Turpentine, gum (see Protective Coatings market, Naval Stores).
Tyrothricin, USP, bots gram. .75 - .85

U

Unicorn root, false (see Helonias root).
True (see Aletris root).
Urea, dom., 46% N, bgs., c.l., t.l., dlvd. zone 1 ton.120.00 - —
l.c.l., ex whse., zone 1 ton.140.00 - —
45% N, bgs., c.l., (30 tons), dlvd. zone 1 ton.137.00 - —
Zone 2 ton.153.00 - —
Zone 1 prices are basis delivered Kan., Neb., N. Dak., Okla., S. Dak., Tex. and E. Zone 2 prices include all states west of Zone 1.
Urea-ammonia liquor, A and B grades N basis, tankcars, Belle, W. Va ton.128.00 - —
C grade, tankcars, same basis. ton.126.50 - —
37 grade tankcars, same basis. ton.155.50 - —
Urethan, USP, dms lb. 1.50 - —
Uva ursi leaves, bls lb. .12 - .14

V

Valerian root, Belgian, bgs lb. .38 - .40
dl-Valine, dms., works lb.21.00 -27.50
Valonia beards, 40-42% tannin, bgs., exdock ton.66.00 -68.00
cups, 28-30% tannin, bgs., exdock ton.46.00 -48.00
extract, powd., 63% tannin, bgs., ex-dock, duty extra lb. .08 - .08¼
Vanadium pentoxide tech., dms., works lb. 1.28 - 1.33
Vanilla beans, Bourbon, tins lb. 8.75 - 9.25
Mexican, cuts, tons lb. 9.25 -10.00
whole, tins lb. 9.50 -10.50
Tahiti, cs lb. 8.00 - 8.50

Vanillin, ex eugenol, tins, 25-lb. lots, lb. 6.50 - 6.75
smaller lots lb. 6.90 - 7.25
ex guaiacol, tins, 25-lb. lots lb. 3.00 - —
smaller lots lb. 3.05 - 3.15
ex lignin, tins, 25-lb. lots lb. 3.00 - —
smaller lots, tins lb. 3.05 - 3.15
Vinyl acetate monomer, 55-gal. dms., c.l., dlvd. E lb. .18½- —
l.c.l., dlvd. E lb. .19½- —
tankcars, dlvd. E lb. .16½- —
tanktrucks, dlvd. E lb. .17½- —
n-Butyl ether, tech., dms., c.l., works lb. .28 - —
l.c.l., works lb. .30 - —
tanks, works lb. .27 - —
Chloride monomer, tanks, frt. equald lb. .10½- —
Ether, USP, anesthesia, bots., 50 c.c., hospitals, bot 1.12 - —
75 c.s. bot. 1.56 - —
Ethyl ether, tech., dms., c.l., works. lb. .26 - —
l.c.l., works lb. .28 - —
tanks, works lb. .25 - —
Isobutyl ether, tech., dms., c.l., works lb. .28 - —
l.c.l., works lb. .30 - —
tanks, works lb. .27 - —
Methyl ether, cyls., works lb. .23 - —
tanks, works lb. .20 - —

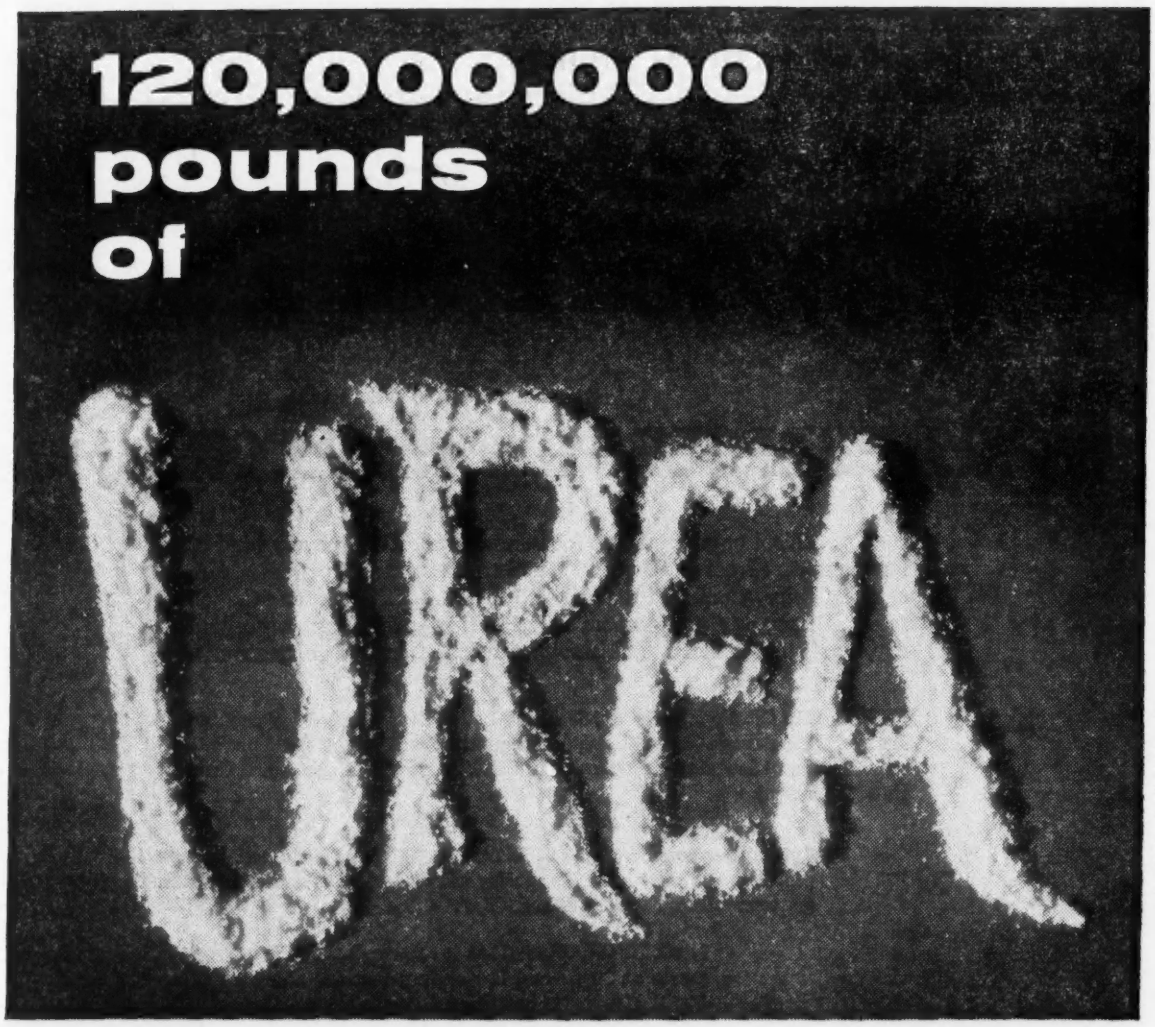
Cylinders are sold outright, or if shipped against deposit, a free period of 60 days is allowed; and if empties are returned prepaid and in good condition within that period, full refund is made.

Trichloride (see Trichloroethane).

2-Vinylpyridine, dms., works lb. 1.40 1.5.
Vinyltoluene, dms., c.l., works lb. .20¼- —
l.c.l. works lb. .21¼- —
tanks, works lb. .19 - —
Viosterol, in alcohol, 1,000,000 D units per gram, bots., lots of 10 billion USP units, 1,000,000 units. .025 - —
lots of 1 billion USP units, 1,000,000 units. .03 - —
lots of less than 1 billion USP units, 1,000,000 units. .035 - —
in nat. vegetable oil, 500,000 to 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02 - .04¾
lots of 1 billion USP units, 1,000,000 units. .025 - .05¼
lots of less than billion USP units, 1,000,000 units. .03 - .05¾
Vitamin A acetate, syn., crystalline, beads, 500,000 A units per gram gram. .07¼- —
dry, 500,000 units per gram, kilo lots kilo.72.50 - —
325,000 units per gram, same basis kilo47.10 - —
250,000 units per gram, same basis kilo.36.25 - —
Dry vitamin A acetate in less than kilo lots, $2.50 per kilo higher in all potencies.
liq., in oil, 1,000,000 A units per gram 1,000,000 units. .12 - —
Palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .12 - —
in oil, 1,000,000 A units per gram 1,000,000 units. .12 - —
B (see Thiamine hydrochloride).
B_1 (see Riboflavin).
B_{12} complex, natural (see Rice bran concentrate and Yeast).
B_6 (see Pyridoxine hydrochloride).
B_{12}, crystalline, 1-gram or 5-gram vials gram.245.00 - —
oral grade solids, in containers of 1 and 5 grams of B_{12} activity gram.185.00 - —
C (see Acid, ascorbic).
D (see Oils, codliver and fish-liver, Calciferol, and Viosterol).
D_2, dry, 850,000 units per gram, kilo lots kilo.42.50 - —
less than kilo lots kilo.45.00 - —
D_3 (see activated 7-dehydrochobesterol).
E (see a-Tocopherol and Oil, wheat germ).
G (see Riboflavin).
H (see Biotin).
K, Active (see Menadione).
K_1, 25 gram bots gram 4.50 - —
Violet methyl toner (see Blue methylviolet toner).
V.M.&P. naphtha (see Petroleum naphtha).

W

Wahoo root, bark, bls lb. 2.50 Nom.
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 - —
25-49-lb. lots, N. Y. or Chicago. lb. 2.05 - —
5-24-lb. lots, cns., N. Y. or Chicago lb. 2.15 - —
Wattle bark, fair average, African, bgs., ex dock ton.98.00 - —
merchantable, bgs., ex dock ton.94.00 - —
extract, liq., 35% tannin, bbls., lb. .09¾- .10
solid, E. Africa, 60% tannin, bgs., ex dock, duty extra lb. .09¾- —
S. Africa, 60% tannin, bgs., ex dock, duty extra lb. .10 - —
Wax, amorph. (see Wax microcrystalline).
Bayberry, bgs., spot lb. .40 - .43
Bees, crude, African, bgs lb. .62 - .63
Brazilian, bgs lb. .67 - .68
Central American, bgs lb. .64 - .65
Chilean, bgs lb. .67 - .68
refd., USP, bleached, white bricks lb. .73 - .76
slabs lb. .72 - .75
yellow, bricks lb. .64 - .66
slabs lb. .63 - .65
Candellila, crude, bgs lb. .62 - .64
refd., bgs lb. .63 - .65
Powdered candellila, 20 mesh, 7c. per lb. higher, 80 mesh, 7c.; 100-200 mesh, 8c.
Carnauba, chalky, bgs., ton lots lb. .59 - .60
North country No. 2, bgs., ton lots lb. .66 - .72
No. 3, Ceara, crude, bgs., ton lots lb. .62 - .63
refd., pure, bgs., ton lots lb. .70 - .71
tech., bgs., ton lots lb. .66 - .67
Parnahyba, crude, bgs., ton lots lb. .66 - .68
yellow, No. 1, Ceara, bgs., ton lots lb. .97 - .99
Parnahyba, bgs., ton lots, lots lb. 1.03 - 1.05
Powdered carnauba wax price differentials same as powdered candelilla.
Japan, bgs. lb. .42 - .44
Microcrystalline 170-175° F.m.p., ASTM, penetration 15-20, ctns., 20,000 lbs., group 3, works lb. .13 - .14
smaller lots, same basis. lb. .14 - .15
black, ctns., 20,000 lbs., same basis lb. .11½- .12⅛
smaller lots, same basis. lb. .12½- .13⅛
white, ctns., 20,000 lbs., same basis lb. .24 - .26
smaller lots, same basis. lb. .25 - .28
180°-185° F.m.p., ASTM, penetration, 7-11; amber, ctns., 20,000-lb. lots, same basis. lb. .16 - —
smaller lots, same basis. lb. .17 - —



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from

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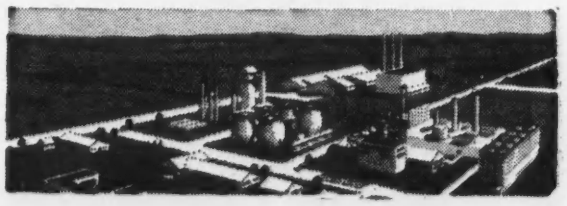
Now in operation in Memphis, Tennessee, is a $20,000,000 plant which adds 120,000,000 pounds a year to America's urea capacity.

This added capacity will mean more urea available to urea-resin manufacturers, which in turn will mean more dependable raw material supply for the manufacturers of plastics that are based on urea resins.

For crystal urea, look to Grace Chemical Company—a dependable source, backed by a world of experience.



Wax, microcrystalline, 180°-185°F, m.p., ASTM, penetration 7-11, black, ctns., 20,000 lbs., same basis lb. .14½ - —
smaller lots, same basis. lb. .15½ - —
white, ctns., 20,000 lbs., same basis lb. .27 - —
smaller lots, same basis. lb. .28 - —
190°-195°F., m.p., ASTM, penetration 2-7, amber, ctns., 20,000 lbs., same basis lb. .20 - —
smaller lots, same basis. lb. .20½ - —
black, ctns., 20,000 lbs., same basis lb. .18 - —
smaller lots, same basis. lb. .18½ - —
white, ctns., 20,000 lbs., same basis lb. .33½ - —
smaller lots, same basis. lb. .34½ - —
Montan, dom., refd., bgs. lb. .30 - .32
imp., crude, Bohemian, bgs. lb. No prices.
German, bgs. lb. No prices.
Ouricury, refd., pure, bgs. lb. .90 - .93
tech., bgs. lb. .85 - .87
Paraffin (see P).
Spermaceti, blocks, cs. lb. .25½ - .31
cakes, cs. lb. .26½ - .32
Sugar cane, dom., refd., slabs, works lb. .65 - .75
spot lb. .67½ - 72¼
White lead (see Lead, white).
White pine bark, rossed, bls. lb. .18 - .19
White precipitate, USP, powd., dms. lb. 6.55 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls. lb. .18 - .19
rossed, bls lb. .19 - .23
Ginger (see Snake root, Canada).
Witch hazel bark, bls. lb. .16 - .17
leaves, bls. lb. .20 - .21
Wollastonite, fine, bgs., c.l., works. ton 39.50 - —
l.c.l., ex whse. ton 56.00 - —
medium, bgs., c.l., works. ton 27.00 - —
l.c.l., ex whse. ton 44.00 - —
Woolfat, crude (see Degras), USP (see Lanolin).
Wormseed, American, bgs. lb. .20 - .25
Levant, bgs. lb. 4.25 - 4.50

X

Xylene (see Xylol).
Xylenol, cryst., 58°-60°C., m.p., dms., l.c.l., works lb. .40 - —
56°-58°C., dms., l.c.l., works, frt. equald lb. .30 - —
45°-47°C., dms., c.l., same basis, lb. .212 - —
l.c.l., same basis lb. .215 - —
tanks, same basis lb. .199 - —
fractions, over 7°C, b.r., except metal, dms., c.l., same basis gal. .90 - —
l.c.l., same basis gal. .99 - —
tanks, same basis gal. .85 - —
meta fraction, over 7°C., b.r., dms., c.l., same basis gal. 1.01 - —
l.c.l., same basis gal. 1.04 - —
tanks, same basis gal. .90 - —
Xylidines, mixed, dms., c.l., truckload, works lb. .39 - —
l.c.l., same basis lb. .40 - —
tanks, same basis lb. .38 - —
Xylol, coaltar, indust., tanks, works, Bethlehem, Pa. gal. .34 - —
Birmingham district gal. .32 - —
Chicago district gal. .35 - —
Cleveland district gal. .34½ - —
Geneva, Utah gal. .27 - —
Johnstown, Pa. gal. .33 - —
Lackawanna, N. Y. gal. .35 - —
Lone Star, Tex. gal. .33 - —
Lorain, Ohio gal. .33 - —
Middletown, Ohio gal. .34 - —
Minnequa, Colo gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .32 - —
Sparrows Point, Md. gal. .34 - —
Terre Haute, Ind. gal. .35 - —
Youngstown, O gal. .32½ - —
petroleum, indust., tanks, works:—
Bayonne, N. J. gal. .34 - —
Baytown, Tex. gal. .33 - —
Chicago, Ill. gal. .35 - —
Houston, Tex. gal. .35 - —
Philadelphia, Pa. gal. .34 - —
Providence, R. I. gal. .35 - —
Wood River, Ill. gal. .35 - —

Y

Yara yara, ens lb. 2.15 - 2.65
Yeast, brewer's, dry, USP, 50 Int'l B units per gram, 100-lb. dms lb. .47 - —
90 Int'l B units per gram, 100-lb. dms lb. .52 - —
200 Int'l B units per gram, 100-lb. dms lb. .56 - —
300 Int'l B units per gram, 100-lb dms lb. .60 - —
Yellow, barium chromate, CP, bbls., dlvd. N. l.c.l., dlvd. N. of Tenn. and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island St. Louis St. Paul lb. .33 - —
Yellow barium chromate price differentials in other States and city zones are those for chrome yellow below.
Benzidine AAA, bbls., dlvd. lb. 2.00 - —
AAOT, bbls lb. 2.25 - —
Lightfast, bbls. lb. 3.15 - —
Cadmium, CP, all shades, bbls., frt. alld. E. of Rockies lb. 2.83 - —
lithopone, all shades, bbls., frt. alld., E. of Rockies lb. 1.15 - —
Cadmium yellows, Los Angeles and San Francisco, ex whse., 1c. per lb. higher.
Chrome, CP, bbls., dlvd. N. Tenn., and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island lb. .32 - —
Dlvd. Ala., Fla., Ga., La. (Shreveport 1½c. higher); Miss., N. C., S. C., Penna., Dallas, Tex. 1¼c. higher; Ft. Worth, Tex. 1½c. higher; El Paso Tex. 2c. higher; Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph 1.6c. higher dlvd. Pac. Coast, for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.
Hansa 10 G, bbls., same basis as yellow, chrome lb. 2.13 - —
G pigment, bbls lb. 1.91 - —
Iron oxide, natural, French type, bgs., c.l., works lb. .05¼ - —
Peruvian type, bgs., l.c.l. lb. .038 - —
pure, bgs., c.l., works lb. .10½ - —
l.c.l., works lb. .10¾ - —
Yellow, mercury oxide, bbls., 1,000-lb. lots lb. 5.58 - —
smaller lots lb. 5.60 - —
Ocher (see Yellow, iron oxide, natural).
Zinc (chromate), bbls., dlvd. lb. .28 - —
basic, dlvd. lb. .31 - —
Yerba santa leaves, bls. lb. .40 - .42
Yohimbine hydrochloride, bots, tin. oz. 4.50 - —

Z

Zein, bgs., 36,000-lb. lots or more lb. .38 - —
1,000 to 36,000-lb. lots, works lb. .40 - —
smaller lots, works lb. .43 - —
Zinc acetate, NF VIII, dms. lb. .53 - —
tech., dms., works lb. .27 - —
Borate, bgs., c.l., dlvd. E lb. .192 - —
l.c.l. dlvd E lb. 202
Chloride, NF, gran., dms. lb. .42 - —
precipitated powd dms lb. .26 - —
soln., 50%, dms., c.l., works, 100 lbs 5.50 - —
l.c.l., works 100 lbs. 6.10 - —
tanks, works 100 lbs. 4.85 - —
tech., fused, dms., c.l., works, 100 lbs. 10.10 - —
l.c.l., works, dms. 100 lbs. 10.60 - —
gran., fib., dms., c.l., works 100 lbs. 10.85 - —
l.c.l., works 100 lbs. 11.35 - —
Chromate (see Yellow, zinc).
Cyanide kgs., 1,000-lb. lots or more works lb. .523 - —
smaller lots, works lb. .543 - —
Dust, pigment, bbls., c.l., works. lb. .15¼ - —
l.c.l., works lb. .15¾ - —
Fluoride bbls., works lb. .49 - .50
Hydrosulfite, dms., c.l., frt. alld., dlvd lb. .21½ - —
l.c.l., frt. alld lb. .22 - .37½
Metal, prime western slabs, E. St. Louis lb. .12 - —
Naphthenate, liq., 8% Zn., dms., frt. alld lb. .24½ - —
10% Zn dms. frt alld lb. .30 - —
Oxide, pigment, American process, lead-free, bgs., c.l., dlvd lb. .13½ - —
l.c.l. dlvd lb. .14½ - —
leaded 35%, bgs., c.l., milled, bgs., c.l., works lb. .04¼ - —
l.c.l., dlvd lb. .15¼ - —
50%, bgs., c.l., dlvd lb. .14⅝ - —
l.c.l., dlvd lb. .15⅝ - —
Zinc oxide, pigment, French process, coml., green seal, bgs., c.l., dlvd lb. .15¼ - —
l.c.l., dlvd lb. .16¼ - —
red seal, bgs., c.l., dlvd lb. .14¾ - —
l.c.l., dlvd lb. .15¾ - —
white seal, bgs., c.l., dlvd, lb. .15¾ - —
USP, ctns., c.l., dlvd lb. .16¾ - —
l.c.l., dlvd lb. .17¾ - —
Zinc oxide Pac. coast prices 1c. higher.
Phenolsulfonate, NF, gran., dms, lb. .39 - —
powd., dms lb. .42 - .49
Resinate, precip., 7.2-7.6% Zn, dms., frt. alld lb. .29 - —
Silicofluoride, bbls., works lb. .12 - .13
Stearate, tech., USP, ctns., c.l. lb. .37 - —
l.c.l., lb. .38 - .42
Sulfate cryst., 22% Zn, bgs., c.l., works, frt. alld 100 lbs. 8.05 - —
l.c.l., same basis 100 lbs. 8.60 - —
flake, 25½%, Zn, bgs., c.l., works, 100 lbs. 5.85 - 7.40
l.c.l., works 100 lbs. 6.85 - 7.90
powd., monohydrate, 36% Zn, bgs., c.l., dlvd. E 100 lbs. 8.25 - —
l.c.l., dlvd. E 100 lbs. 9.25 - —
Zinc sulfate in bbls. 40c. higher.
USP, gran dms lb 26 - —
Sulfide, pure, bgs., c.l., dlvd. lb. .2530 - —
Undecylenate, dms. lb. 2.25 - 2.50
Yellow (see Yellow, zinc)
Zinc-ammonium chloride, bgs., c.l., works 100 lbs. 9.65 - —
bbls., c.l., works 100 lbs. 10.25 - —
l.c.l., bbls., works 100 lbs. 10.75 - —
Zinc-formaldehyde sulfoxylate, basic, dms., c.l. lb. .25½ - —
l.c.l. lb. .26 - .41⅛
normal, dms., l.c.l., works lb. .52 - —
Zircon (G), gran., bgs., c.l., works. lb. .03½ - —
5 tons to c.l., works lb. .03¾ - —
1 ton to 9,999-lb lots, works. lb. .04 - —
smaller lots, works lb. .06½ - —
milled, bgs., c.l., works lb. .04¼ - —
5 tons to c.l., works lb. .04⅜ - —
1 ton to 9,999-lb lots, works. lb. .04½ - —
500 to 1,999-lb lots, works. lb .07½ - —
Zircon (G) in barrels, 1c. higher.
Zirconium acetate, 13% soln. ZrO_2, c.l., 30,000 lbs. minimum, works lb. .23 - —
Hydride, ens., works lb. 7.60 - 8.45
Nitrate, dms., ex whse lb. 4.50 - 7.00
Oxide, 92½%-99%, white, grd., bbls., or bgs., works lb. 1.50 - —
lump, electric-fused, bgs., c.l., works lb. .44 - —
5-ton lots, works lb. .44½ - —
1 ton to 9,999-lb. lots, lbs. works lb. .45 - —
CP, white, grd., bbls., or bgs., works lb. 1.50 - —
lump, electric fused, bags, 500 to 1,999-lb. lots, works lb. .45½ - —
smaller lots, works. lb. .48 - —
milled, electric-fused, bgs., c.l., works lb. .59 - —
5-ton lots, works lb. .59½ - —
1 ton to 9,999-lb. lots, works lb. .60 - —
500 to 1,999-lb lots, works lb. .60½ - —
smaller lots, works. lb. .63 - —
Oxychloride, cryst., ctns., 5-ton lots, works lb. .35¼ - —

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Boron Trifluoride Complexes
Chromium Fluoride
Copper Fluoborate
Fluorboric Acid
Fluorine Cells
Fluorinating Agents
Frosting Mixtures
Hydrofluoric Acid Anhydrous
Hydrofluoric Acid Aqueous
Hydrofluosilicic Acid
Lead Fluoborate
Metallic Fluoborates
Potassium Bifluoride
Potassium Chromium Fluoride
Potassium Fluoborate
Potassium Fluoride
Potassium Titanium Fluoride
Silico Fluorides
Sodium Fluoborate
Tin Fluoborate
Zinc Fluoborate
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Volume 167 **April 25, 1955** **Number 17**

Something to Figure Over

It is esay to see why half of the members of the Hoover commission, including the chairman, did not fully indorse all of the fifty-two recommendations prepared in a report to congress on the reformation of legalistic functioning by governmental agencies. The matter is so broad and so tangled that a definite stand on all its aspects would simply be impossible under any desire to be equitable without much more study. The task force of legal experts that prepared the recommendations could not have covered all the details in a year's reading of commentaries.

Of course, it will take congress about six years to get through the shell of the nut which it has been given to crack. It could take twice that long to get the fingers of all the ten thousand or so agency attorneys out of the picking. So, it will be quite some time before the fundamentally commendable proposals get to a vote of the legislative branch.

It is a good argument that no single governmental agency should make laws, interpret those laws in enforcement applications and determine the guilt and penalty of those to whom it, wholly of its own accord, considers those laws to be applicable. The Hoover task force opined that the judicial functioning should be left to the courts and the legislating left largely to congress. It did suggest that one administrative course be established, a movement which would muss up the existing muss of experts still further—for a time at least—but could be expected to do a better job once it got the combination of lawmaker, judge, prosecutor, jury, and sheriff, broken up into specific parts. Obviously that would be a long step forward in the theories of governmental functioning. Various political pushers, including organized labor, have been for sometime bewailing in a charge that the Hoover commission is headed backward toward the dark ages when the people were supposed to support the government, not to be supported thereby. But, it is easy to see that a return to the original concept of tripartite governmental functioning—legislative, administrative, and judicial—could mean better service for the people, whatever it might mean with reference to the bunches that look upon themselves severally as the reasons why there should be a government. Anyhow, Mr. Hoover's group has pointed in the direction of something that it would be good to have. But, about all that can be done about it is get the report and figure out of its reading some "tacks" to put on the desk seats of status quo members of congress from time to time.

The Polio Protection Plan

Everything possible should be done by all concerned to get the greatest good out of the widely and importantly significant undertaking of the nationwide inoculation of school children with Salk vaccine. Much of that good will lie outside the purpose of the plan to provide protection against the increasingly threatening paralytic affliction.

There is much to be learned from the progress of the program and the reactions of all participants with reference to basic conditions in the health service of the public.

The polio program is an experiment in socialized medicine under both major definitions of the qualifying term. Whether "socialized" means fitted to the needs of society or furnished as a governmental social service, it will apply to the program. It is quite plain that society needs the vaccine service. It is equally clear that government is going to have a big share in the providing of that service. The extent and the value of that participation will depend on various factors—not all of which will be contributed by government. One of the most contributory of those factors is going to be costs, which have already stirred up some nationalistic ideas in fertile political minds, where the feeling is not so much concerned with the possibility of a black market as it is with the published reports of fee-fixing plans by local medical groups, among which there is a dollar spread that the controllists regard as peculiarly wide.

More serious-minded attention comprises the question of adequate available medical functioning. It is expected that much assistance in that direction will have to be provided from government service units and by national civic groups. It is generally agreed that much information of basic essentialness in any evaluation of the medical service of the public throughout this country can be got by way of data which should be made available in the recording of the progress of the polio program. Whether such data will be adequately collected is a question that only time can answer; but, certainly all possible preparations to make those data available should be put in operation without delay.

In that respect, and in others, the Department of Health, Education, and Welfare may be doing more than it has made known in any comment on the program. It should be doing much; and so should all private organizations in the fields of medicine and pharmacy, with the utmost regard for the desirability that the truth, the whole truth and nothing but the truth be made available to the public of the United States.

Expertness on Antitrust Law

One who has appropriately pondered the cynical dictum, that an expert is one who, through striving to learn more and more about less and less, has come to know everything about nothing may be able to get some measure of comprehension of the expertness reflected in the recent report of the Attorney-General's advisory committee on the antitrust laws. Nobody else—other than one who believes that freedom means unlimited license—can fathom the philosophy which slurs over scores of nationally important needs for antitrust law improvement to pick out the extremely narrow area of fair trade law and then to confuse that simple issue with all sorts of sanctimonious platitudes—most of which have little basis in fact.

It is most informative, for example, to learn that the fair trade laws compromise the basic tenets of antitrust policy, without being told that what is attempted by way of compromise is to lessen the incompatibility of the statutes' two objectives—(1) that competition be free; (2) that competition be fair. Fair competition can be free to the full extent of all ethical purposes. Free competition, human nature being what it is, will not, of itself, be fair; it must be restrained. The fair trade policy is directed against the unfair competition of price-cutting which is destructive of competition and consequently is promotive of monopoly in the practice of regional distribution. The protection of competition and the prevention of monopoly are two basic tenets of the national antitrust policy which fair trade does not compromise.

Ponderously is it pronounced that what is popularly called fair trade is in truth price-fixing and therefore goes right down to bedrock in its compromising of antitrust tenets. Strange as it may seem to the expounders of that expertness, price-fixing is not, of itself, illegal.

Certain practices applied to the fixing of prices in some areas are statutorily proscribed; but anyone who has anything to sell is still legally permitted to fix the price that he wants to get for it. On the contrary, price-fixing is illegal under the provisions of the statutes which put very strict limits on price-discrimination. It would be more logical to argue that fair trade is antagonistic to price-discrimination

The experts on fair trade would have got much factual information to support the position of their minority colleagues had they been able to listen in on all the discussions of their dictum among those participating in the recent annual gathering of the Brand Names Foundation. At least, they could have got a better understanding of the value of brand names and of the depreciating effect thereon of the use of brand-name articles as loss-leaders in price-baiting. They might have learned also that that practice is not recognized by the foundation as "outstanding presentation and promotion of manufacturers' advertised brands." Being experts, it could be that they would not see why the public does not accept a manufacturer's one-dollar value on something which it can get at Snipem & Snarem's for seventy-three cents; but, the manufacturer knows. It may be free enterprise and individual initiative, but that is no reason why price-cutting should be extolled as a guaranty that the consumer will get the most for his money. The "free" in that enterprise does not mean something for nothing.

Washington Talks It Over

By Ralph L. Cherry
Chief, OPD Washington Bureau

The President's highway construction program involving the expenditure of $101,000,000,000 on new expressways and roadways over the next decade is making very slow progress in congress and there are no assurances that it can get through this year. The committees started work on the program almost immediately upon its introduction, but they have since become bogged down in details and controversies.

From the chemical industry's standpoint, the highway program is of significant importance primarily because of the potential benefits to transportation that will be gained through a vastly more efficient and integrated system of highways. Also some segments of the industry will benefit directly through sales of the materials that go into modern road building operations.

The biggest controversy surrounds the method of financing the program. The administration's proposal that a corporate setup be established, to issue bonds and finance construction in that manner and thus avoid the necessity of raising the ceiling on the public debt, has encountered opposition from the conservative members. The bonds would be paid off by an increase in the gasoline tax.

Opponents are insisting that instead of setting up the corporation, a cooperative arrangement be made between the federal government and the states whereby the federal gasoline taxes would be turned over to the states for use in road building with the federal government matching the state funds.

Getting After the Bugs

The Food and Drug Administration is getting a big boost from the Department of Agriculture this year in the campaign to keep bugs and vermin out of the grains that are sold for food uses. The boost undoubtedly means more business for the pesticide manufacturers.

The department is requiring this year that any wheat to be eligible for price support loans or for delivery under price support purchase agreements must meet minimum requirements of the FDA. This becomes of increased importance to the pesticide industry because the FDA only recently resumed the wheat sanitation enforcement program it had suspended over a year ago because of complaints.

The Commodity Credit Corporation intends to notify the wheat farmers of the new requirement in a bulletin to be issued in a few days which will explain the specific limitations on insect damage and on foreign matter resulting in contamination of wheat going under price support.

Labor-Management's Year

Last year was a pretty good year in the area of labor-management relations. Records show that there were fewer strikes in 1954 than at any time since 1948, and that they involved fewer workers and fewer idle man-days than in any year since 1944.

There were 3,468 issues involved in the work stoppages, affecting some 1,530,000 workers for 22,600,000 man-days idle. Wages, hours, and supplementary benefits were the big proportion of the disputes, representing some 49.8 percent with demands for wage increases topping the list. Strikes for pensions and social insurance benefits were unusually few in view of the emphasis being placed on these matters by the unions.

Among the industries affected by strikes, the chemicals and allied products group chalked up a relatively stable record. There were only seventy-seven work stoppages involving 18,200 workers. These stoppages resulted in 159,000 idle man-days, but this represented only .08 percent of the working time of all workers.

Statistics to Prevent Accidents

A sort of do-it-yourself series of four popular articles on how to use injury statistics to prevent occupational accidents has just been issued by the Bureau of Labor Standards at the request of the President's Conference on Occupational Safety. The series covers means of coding accident causes; estimate costs of accidents; investigation of accidents for cause and remedy, and work injury rates.

In non-technical language, the first article shows how, in investigating an accident, facts should be selected which determine cause before evidence is either forgotten or destroyed. The second article describes a new method of estimating costs of work accidents which yields reasonable accauracy without undue expense. The third pamphlet discusses the role of foreman, safety engineers, etc., in investigating work accidents and instituting correctional measures, and the final article explains the standard methods of compiling injury frequency and severity rates.

The articles contain many pointers of value to all firms. For example, many companies list as costs only the amount of workmen's compensation and medical care expended on behalf of injured workers. These are only the direct costs and ignore many indirect costs arising from property damage, clerical and investigative costs, and various types of production losses resulting from accidents. The second article tells how to develop standards or averages for indirect costs for various categories of accidents.

For the Bookshelf

NEW PRACTICAL FORMULARY. By Mitchell. Cloth; 376 pages, 5½ x 8¼ inches. New York: Chemical Publishing Company. $7.95.

This volume is a compilation of some 2,500 formulas for various substances, compounds, and mixtures. It covers such items as alloys, bleaches, glues, candy, polishes, inks, rat poisons, pharmaceutical preparations and cosmetics.

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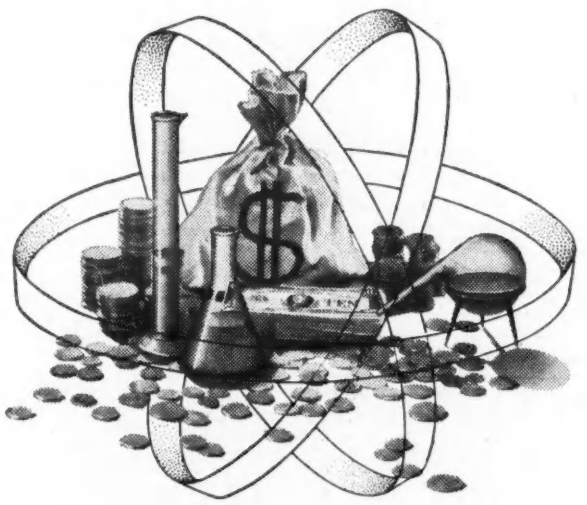

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Heavy Chemicals

Strikes at the works of two major producers of caustic soda and other alkalies, as well as on railroads in the south and in Niagara Falls, continued to dominate the scene last week. The latest strike, at the works of a caustic producer in the southwest, has not been long enough to hamper shipments or cause any squeeze on supplies. Trade sources admitted that it was conceivable that supplies might become very tight should the dispute be lengthy.

The strike also affected output of magnesium in the southwest, but as yet producers had little idea of the future supply position. Platinum metal was advanced as the market firmed. Mercury continued to ease, as buying interest lagged in the face of currently high prices. The copper situation appeared no better last week, as the London market shot up again after having eased to levels comparable to American prices two weeks ago.

Demand for the mineral acids was strong, as heavy consumption for use in the steel industry was a key factor. Increased synthetic detergent and other organic chemical production also resulted in large volume withdrawals of acids on contracts. Rayon output for the first quarter showed a thirty percent increase over the comparable period last year, thus accounting in large part for the strength shown in the caustic soda market over the past few months.

The American Paper and Pulp Association reported production for the week ended April 16 as 95.8 percent of theoretical capacity, as compared with the revised figure of 96.3 percent for the previous week and 92.6 percent for the corresponding week of last year.

Acid, Battery—Prices were unchanged. Acid was quoted at $2.35 per hundred pounds, carboys, carlots, f.o.b. eastern works, and $2.65 to $3.45 per hundred pounds, less carlots, same basis, as to quantity.

Acid, Boric—Consuming demand was active for use in fluxes, enamel and glass, and boron chemical manufacture. Supplies were in good balance with present demand, and were said by some producers to be on the tight side for some grades. Contract quotations held unchanged and steady.

Acid, Hydrochloric—A strike at the works of a producer in the southwest was said to have had little or no effect on the supply position of acid in that area. It was indicated that warehouse stocks and production by other manufacturers in the area, were more than sufficient to take care of consumer needs at the present time.

Consumption showed further increases during the week, as large quantities moved out for a number of end uses. A major factor in demand continued to be the steel industry, currently producing at a high level. Prices were judged fairly stable, and continued to be governed by the ability of the individual producer to sell within local freight areas.

Acid, Hydrofluoric—Glass industry demand held up well, due to currently heavy glass output. Inquiry from steel producers was also strong. Makers reported no pressure on current production levels, and consumers were able to get what they needed without delay. Prices were steady.

Acid, Nitric—Buying interest remained active for acid in all quantities and types of containers. Ample stocks were available at unchanged prices.

Acid, Phosphoric—The market was steady. Withdrawals against old contracts remained in good volume, notably for food uses. Chemical inquiry was also steady. There was plenty of material on hand to fill consumer requirements. Quotations were unchanged.

Acid, Sulfuric—The railroad strike in the south continued to tie up a major producer last week, and consumers in the struck area in some instances were forced to pay higher freight rates in order to get enough acid to fill their immediate needs. Consumers in the region engaged in the manufacture of superphosphate were said to be relatively unaffected by the shortage of acid due to currently heavy supplies of super, as well as ability to get acid from outside sources as needed.

Consumption was heavy for many applications. Steel production for last we was estimated at 95.5 percent of capaci or 2,305,000 tons, as compared to actu production of 94.6 percent the previo week, or 2,284,000 tons. Output continu to edge upward toward the all-time r ord of 2,324,000 tons, set in the week March 23, 1953. This booming produ tion was responsible for heavy orders sulfuric from mills and fabricators. Sy thetic detergent manufacture was mai tained at a high level, and acid sold w in that direction. Prices continued u revised, and aside from the strikebou area in the south, supplies were said to readily available.

Calcium Chloride—Producers noted perceptible increase in demand last wee and were inclined to attribute the picku to ordering ahead for the dust control se son. The real pickup was not expected materialize for a few weeks, however, u til a spell of hot dry weather dried o secondary roads. Prices were unaltere and supplies were ample.

Chlorine—Producers in the Niaga Falls area, plagued by a railroad strik for the past few weeks, were said to l operating at reasonably normal rates la week due to the fact that supervisory he were switching tankcars in and out on a emergency basis. While cylinder ar drum shipments had been made by truc previously, it was reported that by la week, tankcar shipments were of larg enough volume to cut back on truck shi ments of chlorine.

The strike at the works of a major a kali producer, now entering its thirteent week, continued to keep the market fro being in lengthy supply. In some area stocks were said to be in close balanc with demand, and while no one was hear to say that material was unobtainable, was apparent that current demand wa keeping producers' inventories lower tha usual.

Buying interest for the chlorination o organics was stepped up considerably du ing the week, particularly due to the lat but definite interest shown by pesticid consumers. There was also a notable in crease in shipments for water and sewag treatment. Consumption by other chemi cal manufacturers and the paper and pul industry was steady, and deliveries agains contract were in good volume.

Copper Sulfate—Agricultural deman in the south was active, despite report that the Georgia peach crop was nearl 100 percent victim to the recent killin frost. Citrus farmers and truck gardener were reported ordering in moderatel good volume. Supplies were in close bal ance with demand, and prices were firm

Potash, Caustic—Demand for solid an liquid was active. Producers in the Ni agara Falls area reported that despite strike on the railroad serving the plants materials had been successfully moved b supervisory help on the railroad, as wel as by truck. Production rates were said to be as normal as could be expected un der the circumstances.

Producers outside the affected area re ported that a few stray orders had been picked up during the early stages of the strike, but later on shipments were said to have resumed a more normal pat tern. Contract quotations held steady and unchanged, and consumers were reported to be getting what they needed although supplies were in close balance in some areas.

Potassium Carbonate—Demand from the glass industry held up well. The strike at a railroad in Niagara Falls, was said to have been largely overcome by truck ship ments of material. Prices were firm and unchanged.

Soda Ash—The strike at the works of a major alkali producer kept supplies in closer balance than usual last week, although it was indicated that consumers could get what they needed without too much trouble. Both light and dense ash were said to be moving well.

Soda, Caustic—Two labor disputes tied up the works of caustic producers in different regions last week. Workers at one plant have been out for more than twelve

For Late Market Developments, See Page 4

Price Trends

Advanced

Platinum, $1 per oz.

Reduced

Mercury, $1 per flk.

Comparative Price Indexes

(1926–1949 average)

Last week	Prev. week	Last month	April 23, 1954
98.41	98.41	98.39	98.39

(*For Current Prices see page 9*)

Flake Caustic Soda
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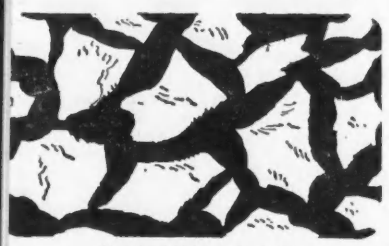
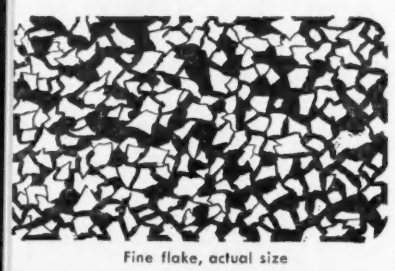
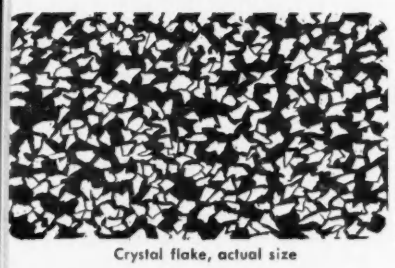


Standard flake, actual size



Fine flake, actual size



Crystal flake, actual size

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weeks, while at the other plant, the strike is more than a week and a half old. At the latter producing point, it was indicated that plentiful inventories had been built up in the area to the extent that consumers had no trouble filling requirements. Should the strike be of any length, however, difficulties are expected to crop up.

The disputes were said to have hit the industry at a bad time, particularly in view of current good demand for most applications. Demand from the rayon industry was particularly good. Producers of rayon and acetate staple and yarn shipped 329,200,000 pounds of materials in the first quarter, according to the Textile Economics Bureau. This was 30 percent more than during the first quarter of 1954, and 10 percent more than during the first quarter of 1953.

In March 124,700,000 pounds were shipped. This was 22 percent more than February's total. Reflecting high output rates in the tire industry, high tenacity rayon shipments last month totaled 39,100,000 pounds, the highest figure since the middle of 1953. Demand for caustic soda from other directions was also strong, and some producers reported sold-up positions for current delivery.

Sulfur — The following figures, in long tons, report production, mine or plant shipments, apparent sales, and producers stocks of native and recovered elemental sulfur of a purity of 97 percent or greater in the United States, as compiled by the Bureau of Mines.

	January 1955	February 1955	February 1954
Native sulfur (Frasch) production	446,512	400,270	437,244
Mine or plant shipments	424,055	426,359	343,512
Apparent sales	*460,089	*414,172	*357,578
Producers' stocks	†3,214,443	†3,200,541	†3,169,556
Recovered sulfur production	33,200	28,100	27,000
Mine or plant shipments	27,989	23,762	19,594
Apparent sales	*28,921	23,400	19,494
Producers' stocks	†113,345	†118,036	†122,794

* Calculated from production and changes in stocks during the period.
† Producers' stocks at mines or plants, in transit, and in warehouse at end of period.

Nonferrous Metals

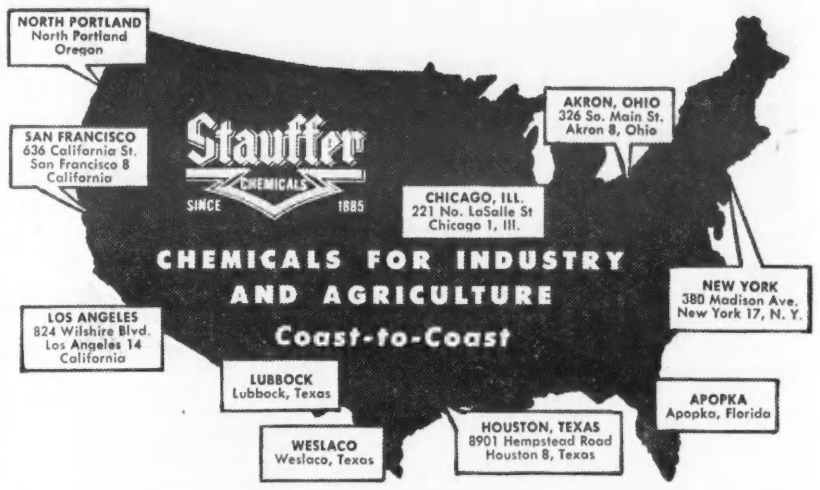
Aluminum—Primary aluminum production in March reached an all-time record high of 260,543,479 pounds, as compared with 232,472,999 pounds produced in February. The first quarter of 1955 also set an all-time record of 749,423,226 pounds, as compared with the previous record of 746,752,243 pounds set in the last quarter of 1954. March output of aluminum last year totaled 244,678,349 pounds. First quarter output in 1954 totaled 698,137,342 pounds.

Chromium—Domestic production for January totaled 11,726 tons, and imports, 100,520 tons for a total new supply of 112,246 tons. Consumption totaled 111,836 pounds. Starting the new year on a rising note, the over-all consumption of chromite in January increased 14 percent over the December total, and 45 percent over the January, 1954, total, according to the Bureau of Mines. Chromite consumption by the metallurgical industry rose 15 percent above the December total, 85 percent over the January, 1954, total, and 15 percent over the January, 1953, total. Refractory use gained 19 percent with December and was the highest since December, 1953. Chemical use gained slightly over the previous month.

Production of chromic acid, chrome oxide green and other chromium chemicals totaled 8,939 tons in terms of sodium dichromate equivalent. Production (shipments) of domestic chromite in January totaled 11,726 short tons, natural weight. On a dry weight basis, shipments from California totaled 1,240 tons, Montana 9,405 tons, and Oregon 269 tons. Winter weather conditions were believed to account for the decrease in shipments.

Prices currently reported for Rhodesian ores are based on long-term contracts. At the end of January, 1955, prices reported for foreign chromite were as follows:—Per long dry ton, f.o.b. cars, United States Atlantic ports: Rhodesian, 48 percent Cr_2O_3, 3:1 Cr/Fe ratio (lump), $43-$44, and 48 percent, no ratio, $32-$33; South African (Transvaal), 48 percent, no ratio, $32-$33, and 44 percent, no ratio, $22-$23; Turkish, 48 percent, 3:1 Cr/Fe ratio (lump), $46-$47. For domestic chromite delivered to Grants Pass, Oreg., the General Services Administration offers $115 for lump ore and $110 for fines and concentrates containing 48 percent Cr_2O_3 and having a Cr/Fe ratio of 3:1.

Copper—The London market shot upward last week as a reflection of threatened labor difficulties in Chile, and at midweek spot prices were ahead of American quotations by some 5⅝c. per pound. Producers here who had hoped that the London market would stay fairly closely aligned in order that some of the world supply of copper would be diverted to the United States, showed disappointment



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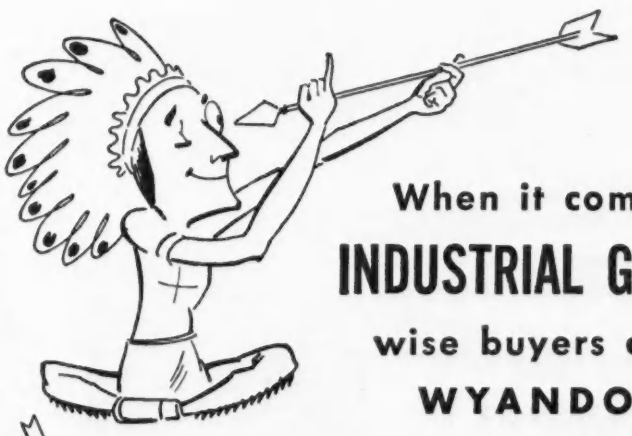

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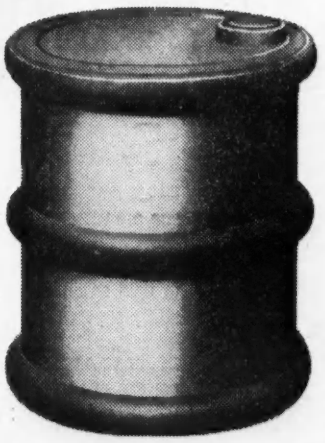

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with the status of trade, where there had been optimism during the previous week.

Copper stocks in the United States in March totaled 46,091 tons, an increase of 1,512 tons over stocks in the hands of producers during February. World supplies of refined copper at the end of March amounted to 148,973 tons, an increase of 4,636 tons over February inventories. Primary crude copper production in the United States in March totaled 98,908 tons, as compared with 89,078 tons produced in February and 86,931 tons produced in January.

Refined copper production in the United States during March totaled 134,933 tons, as against 123,162 tons produced in February. World copper production in March totaled 236,758 tons, as compared with an output of 212,823 tons in February. Deliveries to fabricators in the United States in March totaled 130,586 tons, as compared with 108,503 tons in February. The latter figures include tonnages delivered from government stocks, as well as imports of foreign copper for the account of copper suppliers.

Lead—Demand for most grades was active last week, with the market unchanged. Common grade lead was quoted at 14.8c. St. Louis and 15c. per pound, New York basis.

Mercury—The market continued to ease in the face of dull buying interest at current high prices. Metal last week was quoted at $316 to $320 per flask.

Magnesium—A strike at the plant of a major producer, now going into its third week, was said to have had little or no effect on trade thus far, due to plentiful warehouse stocks of metal. Prices were unchanged.

Platinum—The market was firmer. Metal rose to $77 to $79 per troy ounce, spot.

Tin—The market fluctuated narrowly, and ended slightly firmer. Straits tin was quoted at 91½c. per pound, spot.

Olin Mathieson Names Nine In Farm Chemicals Division

Olin Mathieson Chemical Company, Baltimore, Md., has named J. F. McLaurin sales representative for finished insecticide products in South Carolina and has announced eight other sales appointments in its agricultural chemicals divisions.

R. H. Hodgson, formerly in charge of domestic sales in the company's John Powell division is now manager of retail sales of the eastern fertilizer division. Donald T. Fangmeyer, formerly manager of bulk superphosphate sales, is manager of the eastern fertilizer division's wholesale sales department. G. D. Baerman, formerly with the John Powell division, is manager of agricultural sales in the expanded insecticides division, and Paul Williams is assistant manager. Alfred Weed, also formerly with Powell, is manager of the household sales department.

In the western fertilizer division G. A. Wakefield is sales manager and Paul F. Schowengerdt is assistant sales manager. David Dickey is sales manager for the western sulfur and acids divisions.

Chemical Funds Granted To Turkey, FOA Reports

Turkey was issued two allocations totaling $152,000 by the Foreign Operations Administration last week for the purchase of chemicals and chemical preparations exclusive of alcohol, fertilizers, synthetic rubber and toilet preparations. The authorization numbers were 77-390-99-74-5242 and 5216.

The United Kingdom was issued procurement authorization numbers 57-0501-00-47-5160 for the purchase of $477,000 of lard from United States sources under contracts to be entered into through July 31 specifying delivery by September 30.

Niobium Corp. Is Set Up For Reclaiming of Metals

Niobium Corporation has been formed to reclaim valuable and critical non-ferrous metals such as cobalt, nickel and columbium from scrap stainless steels, with headquarters at 62-16 Woodhaven Boulevard, Rego Park 74, N. Y. President of the new company is F. D. Cardwell. The other officers are:—Vice-Presidents, P. M. Elbal, and Stanley O. Goodman; secretary-treasurer, Arthur Harelick.

LoBue Adds T. F. Cleary

Philip J. LoBue Company, New York, has announced that Thomas F. Cleary, former vice-president and director of research for Chemagro Corporation, New York, has joined the company as sales manager for organic intermediates. Mr. Cleary will supervise sales of products sold by LoBue as agent for Crestwood Chemical Company, Chicago.

President Asks 3½ Billion In Funds for Foreign Aid

A foreign aid fund of $3,530,000,000 for the new fiscal year beginning July 1 was recommended to congress last week by President Eisenhower. The fund would be distributed as follows:—

For economic programs, $712,500,000 including $172,000,000 for technical cooperation, $175,500,000 for special projects, $165,000,000 for development assistance, and $200,000,000 for special all-Asia aid; for military assistance and direct forces support, $1,700,000,000; for defense support which serves both economic and defense purposes, $1,000,000,000; for a world-wide contingency fund, $100,000,000.

The President noted that the mutual security program for the new fiscal year does not propose any economic aid for the original Marshall Plan countries of western Europe and said that this is evidence of the worth of the program. Aside from Asia, he said, continued assistance is necessary for Spain, Yugoslavia, Berlin, Iran, Greece, Turkey, Africa and Latin America.

For Latin America, the President urged in particular an intensification of the Point Four program of technical cooperation, recalling the technical co-operation first was undertaken in this area more than ten years ago.

German Chemical Imports 44 Percent Higher in 1954

German chemical imports in 1954 increased 44 percent over 1953 to reach a total value of 892,000,000 German marks (US $212,000,000) while chemical exports over the same period increased 28 percent, the Department of Commerce reported last week.

At the same time, the share of chemicals in total German imports rose from 3.9 percent in 1953 to 4.6 percent in 1954, an indication that foreign firms have benefited directly from the development of the German chemical market.

Imports of chemical raw materials have increased 8 percent since 1952; half-finished chemical imports, 59 percent; and finished chemical imports, 68 percent.

This increase in imports was due not only to the expansion of the German chemical industry but also to the relaxation of quantitative import restrictions on trade with countries of the Organization for European Economic Cooperation and dollar areas, and to the generally low German tariffs on imported chemicals.

DuPont's Chief Engineer Offers Specialization Defense

The growing trend to engineering specialization was defended last week by Granville M. Read, chief engineer of E. I. duPont de Nemours & Co., Wilmington, Del., at the diamond jubilee spring meeting of the American Society of Mechanical Engineers in Baltimore, Md.

Mr. Read said, "We hear sometimes that this is an age of overspecialization. While I agree that engineers should be well-rounded men, an integrated engineering effort demands specialized knowledge in a great many specific engineering fields. We never regiment engineers into a speciality, for we know through experience that this has been ineffective."

Hydraulic-Resistant Product Developed by Monsanto Unit

Development of a synthetic elastomer, "Vryam," said to have unusual resistance to petroleum and chemical hydraulic fluids which impair presently available elastomers, has been developed by the organic chemicals division of Monsanto Chemical Company, St. Louis, Mo. An acrylate type elastomer, the product is said to be currently available in interim quantities.

According to Monsanto, the principal use for the new material is expected to be in the field of hydraulic packings which are used to seal connections in joints in hydraulic systems to prevent loss of fluid.

International Nickel Post Goes to Charles Sanborn

Charles B. Sanborn has joined the electroplating section of the development and research division of International Nickel Company, New York, according to an announcement by O. B. J. Fraser, assistant manager of the division. Mr. Sanborn was formerly associated with Graham Crowley & Associates, Inc., Chicago; Sherwin-Williams Company, Cleveland, Ohio, and American Steel & Wire Company, Cleveland, where he was senior research chemist at the company's research laboratories.

Interchemical Corp. Director

Joseph G. Morris, president of its international division, has been elected to the board of directors of Interchemical Corporation, New York. The company has also announced the appointment of Phillip H. Dewey to the newly-created position of administrative assistant at the central research laboratories.

Catalyst Development Told By Davison Chemical Co.

Davison Chemical Company, Baltimore, Md., a division of W. R. Grace & Co., has announced two new products, one a high alumina catalyst containing 25 percent alumina as against 13 percent in the catalyst regularly supplied and the other, a low density catalyst.

The company stated that with low density, a higher degree of catalyst stability can be obtained, but that this has hitherto been at the sacrifice of the attrition resistance of the product. Now, without loss in this quality, the Davison low density catalyst retains the inherent advantages of higher stability of surface area, pore volume and catalytic activity under operating conditions, it was reported. In the high alumina catalyst, lower stack losses have also been found, Davison stated.

Shea Moves Main Offices

Shea Chemical Corporation has opened executive offices in Jeffersonville, Ind., where the company recently built permanent office quarters. According to Shea, the purpose of the move from Baltimore, Md., was to bring the main offices closer to the center of operations. Shea also announced the opening of a New York office at 114 East 40th street, and the establishment of an organic phosphates division at Adams, Mass.

Nickel-Bearing Iron Ores Of Cuba Are Investigated

The nickel-bearing iron ores of Cuba constitute not only one of the world's greatest potential sources of nickel and cobalt, but also an important potential source of iron and chrome, according to a Bureau of Mines report released last week by Secretary of the Interior Douglas McKay.

Beginning in 1952, the bureau investigated deposits in the Levisa district of Cuba's Oriente Province to learn whether there were enough reserves to justify enlarging the plant of the United States Government-owned Cuban Nickel Company, near Nicaro. The work was done for, and financed by, the Defense Materials Procurement Agency and its successor, the Emergency Procurement Service of the General Services Administration.

Built after the Pearl Harbor attack, the Nicaro plant produced over 63,500,000 pounds of nickel plus cobalt up to the suspension of operations in 1947. Growing nickel requirements of the Korean war caused its reopening in 1952, and the Office of Defense Mobilization desired to enlarge it by 75 percent if enough ore could be found. This expansion is currently being undertaken.

By 1954 the bureau had outlined enough reserves to supply the plant for many years. Its investigation indicated nearly 35,000,000 short tons of ore. The plant feed used during 1953 contained 1.37 percent nickel, 0.09 percent cobalt, 38 percent iron, and 2.75 percent chromic oxide. Thus far only the nickel mineral and cobalt mineral have been recovered, the latter, however, not as a separate product.

A copy of R. I. 5099, "Nickel-Cobalt Resources of Cuba," by W. D. McMillan and H. W. Davis, can be obtained from the Bureau of Mines, Publications Distribution Section, 4800 Forbes Street, Pittsburgh 13, Pa. It should be identified by number and title.

Becco Appoints Shutts As Hansen's Successor

John F. Shea, vice-president in charge of sales of the Becco Chemical Division of Food Machinery & Chemical Corporation, has announced that Eric A. Hansen, manager of the New York territory of the company, has retired to devote full time to his own business enterprise in Florida.

Albert L. Shutts, who had been Mr. Hansen's assistant, is now in full charge of sales and customer service operations in the New York territory. He will be assisted by Edward M. Roth, jr., who is being transferred from the Buffalo, N. Y., home office to the New York city office at 420 Lexington Avenue.

Mr. Roth joined Becco in 1936 and has been a member of the research and development department staff ever since. More recently, Mr. Roth handled research and customer service work connected with the use of sodium perborate and other specialty peroxygen compounds, stabilization and dilution of hydrogen peroxide and physical chemistry of peroxygen compounds generally.

Conoco Petrochemical Unit Positions to Hovlid, Clark

A. M. Hovlid has been appointed director of industrial relations for Continental Oil Company's petrochemical department. Mr. Hovlid formerly was an administrative assistant to the company's manager of industrial relations. It was announced at the same time that W. W. Clark, administrative assistant in Conoco's petrochemical department, has been promoted to chemical market research assistant in the petrochemical department. Both men will continue to make their headquarters in Houston, Tex.

Stauffer Buys Plant Site

The purchase of a tract of land at Omaha, Neb., has been announced by Stauffer Chemical Company. Hans Stauffer, president, said approximately fifteen acres will be used in 1955 for the construction of an agricultural chemical plant, for the manufacture of dust and liquid insecticides, herbicides and grain fumigants. Present plans also include the construction of a warehouse.

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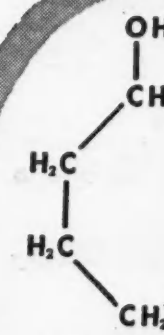

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Industrial Organic Chemicals

Acetone continued to be one of the few weak spots in the entire industrial organic price structure. Most other materials were reasonably firm in price and were moving relatively well.

Solvent demand kept the volume of acetone being sold up at a good level, which was in line with movement of ethanol, butanol and their esters, and other solvents too. Demand for ethanol was well diversified.

A strike that has effected production of chlorinated solvents and glycols at one producing point has not substantially changed the market position of any of these products. There appeared to be enough material available to meet requirements without difficulty. Total production capacity in the industry has also averted any serious side effects from a prolonged labor tie-up in the market for CMC.

Well sustained activity for synthetic resins has kept PE, dipentaerythritol, formaldehyde and glycerine moving in good volume. Formaldehyde also enjoys a substantial volume of business in adhesives, especially in plywood bonding. And, refined glycerine moves into various consuming channels with equal force. Total demand for glycerine has been enough to keep the market in tight supply.

The volume held up for ethyl ether. Demand was steady for ethyl acetoacetate. Formic acid moved very well. The market for hexamethylenetetramine was said to be normal. Demand for crude lactose has been a little slow.

Acetone—The way acetone has been shaping up in recent weeks has not materially altered its position in the market. Some sources indicated that they have been having no difficulty in moving their output without resorting to shading prices to meet competition. Other suppliers have indicated that they have not been selling under the market, but, they have not been able to move all of their output along.

This condition of surplus acetone in the market has been consistently used by consumers as a lever to apply pressure for lower prices. Producers resistance to reductions stiffened with each drop of past months. Presently the market seems to have reached a level where the volume of sales is sufficient to maintain prices at 7c. per pound in tankcars. Yet, there is substantial surplus material and government business has been strong enough to move only part of it.

Alcohol—Demand for ethanol was holding up well. There was good interest from solvent requirements and there was good activity for other uses such as pharmaceuticals and chemical end-use. Many various consuming channels provided a steady level of inquiries.

Prices were felt to be firm at current quotations. There was no immediate likelihood for an advance, it was felt. But, the shading of schedules for large contracts that existed last year was not so prevalent in the market now. Most producers expected current market activity to be maintained for awhile without too much change in price structure or demand levels.

Figures on production, withdrawals, and stocks released by the Alcohol and Tobacco Tax Division of the Internal Revenue Service, pertaining to ethyl, completely denatured, and specially denatured alcohol during February, 1955, compared with February, 1954, were as follows:—

Production

	Gallons 1955	Gallons 1954
†Ethyl	33.015.256	23.909.562
*Completely denatured	48.500	31,692
*Specially denatured	17.628.991	14.139,463
Withdrawals		
†Ethyl, tax paid	672.194	1.113.344
tax free	33.006.342	26.530,473
*Completely denatured	50.034	39.546
*Specially denatured	17.123,887	12.852.005
Stocks		
†Ethyl	53.057.419	47,598.404
*Completely denatured	5.865	14,769
*Specially denatured	5,449,004	6,583,006

*Wine gallons. †Proof gallons.

This market reports on industrial aliphatic organic chemicals. Reports on industrial aromatic organics may be found in the Coal Chemicals market, while reports on fine and rare organic chemicals appear in the Drugs, Fine Chemicals, Botanicals market.

Price Trends

Advanced
None
Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 23, 1954
130.45	130.45	130.44	132.28

(For Current Prices see page 9)

According to the Alcohol and Tobacco Tax Division, materials used in industrial alcohol plants in February, 1955, and February, 1954, were as follows:—

	Pounds 1955	Pounds 1954
Corn and corn products	1.862.753	3.083.769
Rye and rye products	70.100	5.341
Malt and malt products	328.406	158.303
Wheat and wheat products	828.434	2.399.071
Sorghum grain and sorghum grain products	5.317.534	.....
Other grain	.....	.....
Total grain	8.407.272	5.651.484
Ethylene gas	7.841.435	7.829.204
Other materials	671	.....
	Wine gallons 1955	Wine gallons 1954
Molasses	3.480.032	2.154.862
Ethyl sulfate	18.987.575	13.509.629
Sulfite liquors	21.394.900	14.161,100
Other materials	2.214.958	1.191.388
†Products used in redistillation	2.343.380	3.357.450

†Proof gallons.

Butyl Acetate—Demand from lacquer accounts has kept a fairly steady volume of material moving along. The esters were still competitive with other solvents in lacquer uses, but the acetates get a certain amount of consistent demand of their own, it was said. Prices were firm without change. Supplies were good.

Butyl Alcohol—Suppliers indicated that the market for this solvent was holding up well enough. Demand moved production out about as fast as it was made. Producers controlled output so that it did not get ahead of what requirements would be. What was not sold as the alcohol generally moved in the form of the ester, so that the entire picture was fairly well balanced out.

Aside from a reasonably good domestic call from synthetic resins, plasticizers and lacquer outlets, there has also been some export interest for butanol. Price schedules held firmly to former levels. No revisions were anticipated.

Dipentaerythritol—Producers indicated that demand held to a steady pace in the market for this material. It was said that activity in synthetic resins was very good and showed no sign of faltering.

Prices for dipentaerythritol were firm a formerly quoted levels. No revisions were anticipated. Adequate supplies were available to take care of the demand. Production was being moved out about as fast as it was made.

Ethyl Acetoacetate—Demand has been consistent in this market. Producers were moving approximately the same volume of material out each month. Prices were firm and supplies were adequate to take care of the market requirements. Total demand was not especially strong as this is not a very large industrial item, it was added.

Ethyl Ether—This material was moving along very well producers reported. Demand was steady at a good pace. There has been no sign of a letdown. Prices were firm and unaltered. Consumers found ample material to fill their requirements without unusual delay.

Formaldehyde—A continued good call from synthetic resins and adhesives sustained total sales for this aldehyde. Activity in the paint industry and other resins outlets was good. Formaldehyde received good call from adhesives used in the plywood bonding industry. The wood bonding, in turn was well supported by the continued building boom.

Prices were steady at listings established at the start of the quarter. Material continued to move well at those prices and there were no indications of an immediate change. Stocks and production were enough to cope with the demand. Suppliers did not anticipate any shortage.

Formic Acid—This acid was reported to be moving very well. Producers were turning out material at an excellent rate and were selling all that they made. There appeared to be no shortages in the market. Prices were firm without change.

Hexamethylenetetramine—Suppliers indicated that the market for this material was in a normal position. It was added that there are only real surges for the material when the government is buying for explosives. Price schedules now were steady and firm.

Glycerine—There was still some tight-

For Late Market Developments, See Page 4

ness in the market for refined material. But, producers indicated that they have been taking care of their commitments without difficulty. It was felt that most consumers have been able to get enough glycerine for production, although they all could not get just as much as they asked for.

Demand has been very good from the paint industry where synthetic resins use a good amount of glycerine. Industrial finishes for automobiles represented a good steady volume. But, a cutback in this industry for any reason would be felt back through resins and to basic raw materials.

There was also a good call for glycerine from such outlets as pharmaceuticals, cellophane and explosives. Crude material has been short domestically and there was not enough imported crude available to fill the gaps. Overall stocks were considered a bit low in the last reports and it was felt that March figures would not show much relief, when published. Production has been fairly good. But, consumption levels were sufficient to move the material right out as fast as it was made. Price schedules of both crude and refined grades were quoted at the same levels as previous weeks.

Lactose—Present requirements were holding steady to levels of previous weeks. Trade sources indicated that demand was not as strong as it has been in the past. Crude material is not moving to penicillin makers as fast as it has in the past.

The increasingly competitive position of antibiotics and the competitive market for penicillin itself was said to be part of the picture that has reduced the volume of lactose moving in this direction. Use of other types of carbohydrates has developed out of this situation, it was added.

For this reason, current demand levels were not considered too good. There also was imported lactose to compete with, domestic suorces related. However, imported material was not as much of a factor as it has been in the past. The present needs of the market were seen to be in the development of new consuming outlets. There is work in that direction going on now, it was said.

Prices of crude grade were still quoted at the level of 15c. per pound, but a certain amount of weakness was seen there due to the competitive influences mentioned. Supplies were considered adequate. The new production season is just starting and was expected to bring in more material through June. Edible material for food uses was reported steady in price and moving at an even rate for those outlets.

Methyl Bromide—There hasn't been a great deal of change in the market. Producers moved material out steadily to fill orders. It was reported that export demand has not been too good. An important factor that has slowed down the call for methyl bromide from this direction was the shortage of dollars in South America.

There is a good market and substantial need for the material in Brazil, it was said, but the dollar deficit has slowed trade. This bromide is used for fumigation in agriculture and finds use in control of ants for coffee growers.

Paraformaldehyde—Producers indicated that the same volume of material was being sold that had been moving in previous weeks. Demand from synthetic resins was steady. Supplies were adequate to take care of current consumption requirements.

Pentaerythritol—Prices remained firm at former quotations. Producers reported that demand from synthetic resins was holding up very well. Business activity for PE was in line with overall levels for resins. No slackening in demand was seen or anticipated immediately. Supplies were adequate for the call.

Propylene Glycol—The market continued to enjoy relatively good demand. Producers indicated that they had been moving reasonably good volume of material to industrial outlets.

A strike at one producing plant has not caused a great deal of extra pressure in the market thus far. One reason was that most producers of glycols indicated that they could use more demand from industrial outlets than they have been getting in recent months. It was said that there were stocks available to meet consumption needs and no shortage was expected to result from the labor tieup.

Trichloroethylene—There was still a good demand for this chlorinated solvent. Producers were moving material out to fill orders. There was also some competition in coastal areas from imported material. Price schedules have held firmly to former levels.

A strike at one production facility of a major producer has not brought any drastic influence on the market yet. It was said that there has been enough output available to take care of consumption and no shortages were presently expected to develop.

SAACI Announces Golf Dates

The Salesmens Association of the American Chemical Industry has announced its calendar of golf outings for the coming season. The dates are:—May 17, Garden City Country Club, Garden City, N. Y.; June 21, Bonnie Briar Country Club, Larchmont, N. Y.; July 15, Ridgewood Country Club, Ridgewood, N. J.; August 4, Tamarack Country Club, Greenwich, Conn., and September 1, Hackensack Country Club, Oradell, N. J.

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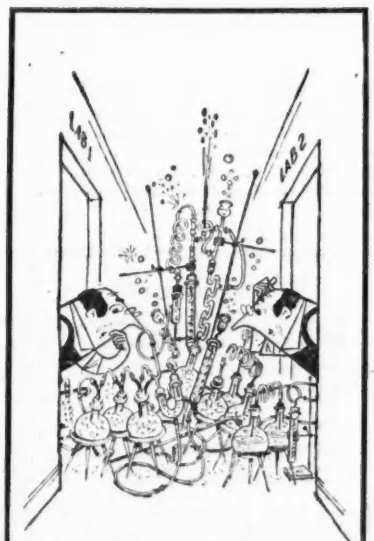

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AEC Establishes License Division; Price Is Director

The Atomic Energy Commission has set up a division of licensing, with Harold L. Price as director. The division will be responsible for the preparation and administration of commission regulations dealing with the licensing of private atomic energy activities and related matters under the atomic energy act of 1954. Early preparation of regulations for consideration by the commission has been carried on by a group of AEC staff members under the direction of Mr. Price.

During the period of regulation drafting, the commission has issued licenses to applicants who needed them to proceed with approved atomic energy enterprises in such fields as the construction of small research reactors.

To take the post of director of the new division, Mr. Price left that of deputy general counsel, which he held for four years. Earlier he had been the commission's chief law officer at the Oak Ridge Operations Office, Oak Ridge, Tenn., and had served as an attorney in the Washington, D. C., office of the commission. His service with the commission began in 1947.

Carbon Filter Regulations Broadened by Gov't Tax Unit

The alcohol and tobacco tax division of the Internal Revenue Service last week broadened its ruling permitting the use of activated carbon as a filter in certain whiskey making operations.

The regulations had permitted the use of activated carbon at the rate of seven ounces to 400 gallons of spirits as a filtering medium in the clarification of whiskey to be bottled without rectification and to be bottled in bond, provided the original character or composition of the distilled spirits is not changed. The broader ruling permits the use of this chemical filter in all classes and types of distilled spirits bottled in bond or bottled without rectification.

USDA Pesticide Expert To Retire After 42 Years

Dr. E. L. Griffin will retire at the end of this month after forty-two years of government service as assistant head of the pesticide regulations section of the plant pest control branch of the Agricultural Research Service of the Department of Agriculture.

Dr. Griffin's government work has been spent entirely with the Department of Agriculture and in activities connected with pest and weed control. He will be honored April 27 by the National Agricultural Chemicals Association and other representatives of the pesticide industry.

Potash Deliveries Set

—*Continued from page 5*

States received for agricultural purposes 483,193 tons K_2O, Canada 39,475 tons, Cuba 3,275 tons, Puerto Rico 5,139 tons and Hawaii 3,986 tons. Exports to other countries were 5,976 tons K_2O.

Chemical deliveries during the fourth quarter amounted to 43,080 tons of salts with an equivalent of 26,726 tons K_2O, an increase of 15 percent over the corresponding period in 1953. Of the 1954 total, muriate of potash equivalent to 24,836 tons K_2O and sulfate of potash containing 1,551 tons K_2O were delivered in the United States, and 195 tons K_2O as muriate and 40 tons as sulfate of potash were delivered in Canada. Exports were 104 tons K_2O.

In addition to the regularly reported deliveries on the quarterly basis, information from governmental and other sources indicates that during the second half of 1954 there were additional imports of European potash into Cuba, the United States, Canada, and Puerto Rico of 70,986 tons K_2O as muriate of potash and 18,881 tons K_2O as sulfate of potash. These figures are included in the deliveries for the fourth quarter.

Trade Briefs

Ethyl Corporation, New York, is issuing a brochure discussing uses of sodium dispersions to speed chemical reactions.

Pittsburgh Plate Glass Company, Pittsburgh, Pa., has appointed R. F. Barker general manager for planning in its glass manufacturing division.

Philip S. Duff, vice president and secretary of Archer-Daniels-Midland Co., Minneapolis vegetable oil crushers, has been elected to the board of directors of Strutwear, Inc., Minneapolis, Minn.

Shell Development V. P.

Jack A. Horner, secretary of Shell Oil Company, has been appointed vice-president in charge of the licensing division of Shell Development Company. In addition to his new post with Shell's research affiliate, Mr. Horner will retain his present position with the parent company. An eighteen-year veteran with Shell, Mr. Horner has been its secretary since 1953.

Hart Develops Sequestrant

Hart Products Corporation, New York, has developed a sequestering agent named "Kalex Cul," which is reported to show powerful ferric iron chelating power, in addition to potent alkaline earth chelating action.

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Agricultural Chemicals

Buying interest for the nitrogenous fertilizers showed some improvement last week, although most producers indicated that they had been disappointed with the showing made so far this year. There was said to be a large amount of material in storage, which was unusual considering the the season. Trade sources pointed out that buying interest, while having started up later this year than last, had followed a seasonal norm set during previous years.

Phosphates were subject to spotty inquiry, with rock and superphosphate in plentiful supply. Triple remained tight in view of increased buying interest. Potash fertilizers were reported stable in price, and about in balance as regards market position. Animal proteins reflected the doldrums of the feed industry, and bonemeal and tankage were weaker. Phosphates for use in feeding were also said to be moving out more slowly, as farmers turned stock out to graze.

Demand for pesticides was said to be strong. Competition forced p-dichlorobenzene prices down during the week. While sales of parathion and malathion were lower than normal during the first two months of 1955, sizable withdrawals against contract sent sales ahead of last year's levels in late March and April. DDT, BHC, 2,4-D and lindane appeared to be under the influence of price competition despite good movement to consumers.

Price Trends

Advanced

None

Reduced

Bonemeal, $2.50 per ton.
p-Dichlorobenzene, 2c. per lb.
Nitrogenous tankage, $1 per unit-ton.
Tankage, N. Y., 25c. per unit-ton.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 23, 1954
110.79	111.04	111.31	112.76

(For Current Prices see page 9)

Animal and Plant Foods

Ammonia, Anhydrous — Sources indicated that a sizable storage inventory was on hand, due to the late start of the season as compared with last year. It was pointed out that last year the season began unusually early, and that this year demand could be said to have assumed a more normal pattern. Cold weather in many consuming areas delayed direct application, and in the south, railroad strikes were said to be causing shipping difficulties.

It was pointed out that it was fortunate that the strikes and cold weather were concurrent, because otherwise there could have been serious problems in deliveries. Buying interest by last week was showing a marked upward trend, and producers expected to work off their inventories swiftly within a few weeks. Furthermore, it was stated that although inventories in the hands of manufacturers were heavier than at this time last year, there was no real pressure placed on storage facilities.

Ammonium Nitrate—This market was similar in many respects to the anhydrous ammonia market, in that there had been more of a buildup in producers' stocks than was anticipated. The coming of strong demand for shipment against contract was expected to bring the market into close balance within the next few weeks.

Ammonium Sulfate — Although both coke oven and synthetic material appeared sold out on contract, there was a reported buildup of spot stocks in producing areas, and it was apparent to the trade that the late start in consumption had caused accumulations of supplies at shipping points. Although some sources predicted that spot reserves would be absorbed during the next few weeks, others felt that it was too early to tell whether or not demand would equal or surpass last year's level.

Animal Proteins—Bonemeal and tankage declined in the face of spotty demand during the week. Bonemeal was off to $72.50 per ton, spot, Chicago, and tankage off to $5 per unit-ton, f.o.b. New York. February production of fishmeal was 1,961 tons, as compared with 1,712 tons in February, 1954, according to the Fish and Wildlife service.

Castor Pomace—Demand was reported good, but there was none offered. Price continued nominal at $37.50 per ton.

Phosphate Rock—List prices held unchanged last week, but firm bids for large quantities could have shaded quotations. Supplies were reported more than adequate to meet current needs, although it was reported that supplies were in a less lengthy position last week than earlier in the year.

Potash Salts — The market for these materials appeared to be in fairly good balance, with active demand reported. Prices were judged firm, and were expected to hold for the remainder of the season.

Superphosphate — Supplies continued quite heavy for normal super, with demand said to be less active than a year ago at this time. It was felt that delays due to weather, as well as a pronounced switch on the part of some consumers to the use of triple, had had a depressing effect on the market. Triple remained in tight supply, with makers continuing to report sold out positions through June.

Los Angeles Market

Los Angeles.—Domestic fishmeal eased somewhat to $2.47½—$2.50 per unit of ammonia for prompt, and $2.40 per unit for summer meal. Considerable import meal was received at San Francisco, both South American mixed and Norwegian herring, with quotations at $2.40 per unit, ex-dock. Heavy demand continued for ammonium nitrate and sulfate with the supply position tight. Movements of 16 20 grade ammonium phosphate were well maintained with stocks adequate to meet present requirements.

Pesticides

The European corn borer made news last week in the Department of Agriculture's Cooperative Economic Insects Report. Pupation in one county in Delaware registered 50 percent as compared with only 15 percent during the comparable period last year. The pea aphid was reported to be rapidly on the increase throughout Virginia. In Oklahoma, spraying was underway to counteract widespread infestation by the yellow clover aphid.

BHC—Sales were reported by some sources to be running even with last year's pace. The price structure was said to be weak, primarily due to competition among a number of manufacturers. The same situation applied for lindane, and it was pointed out in the trade that some producers had been forced to suspend production because of a sharply competitive market over the past few years which had reduced margins to the extent that manufacture was no longer profitable.

Calcium Cyanide—Consuming demand was ahead of last year's level. Old business held up well for fumigation. Quotations were steady and unchanged. Prices ranged from 24c. to 50c. per pound, drums, delivered east of the Rockies, depending on quantity.

2,4-D—Greatly expanded production as well as a large number of producers accounted for weakness in the market, in spite of good seasonal demand. Another factor which some suppliers said made for shaky prices was a late start in buying interest, compared with last year.

p-Dichlorobenzene — Prices were reduced 2c. per pound across the board last week. It was reported that despite the recent increase in buying interest, heavy price competition had necessitated lowering quotations. Material was newly quoted at 14½c. per pound, drums, carlots, freight allowed east, and 17c. per pound, less carlots, same basis.

DDT—Both foreign and domestic buying interest were on the rise during the week, but most sources agreed that competition was flourishing despite large volume consumption.

Hydrocyanic Acid—There was not much change in the market picture. Prices were firm and unchanged. Withdrawals against contract were in steady volume.

Malathion — Producers reported that sales were running ahead of last year, and that the market was extremely active. Material sold in large quantity against contract at firm prices.

Parathion—March and April business thus far was said to have been beyond expectations, particularly in view of the slow start witnessed in late January and February, during which time prices were weak and producers were generally pessimistic about future prospects. By last week, however, it was generally agreed that business was very satisfactory, and that the present price schedule was firm.

For Late Market Developments, See Page 4

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BARRETT CHEMICALS

CHEMICAL PROGRESS WEEK—MAY 16-21

Coal Chemicals

Monochlorobenzene prices were reduced 1½ cents last week. Demand for many coaltar products was good and in line with overall business levels. Tar acids were moving well. Aromatics were holding up. Demand for dyestuff intermediates was quite good. Intermediates going to the rubber industry sold at a very good level. Chemicals also moved well to plastics and plasticizers.

The meta-para fractions of cresol and the cresylic acid grades high in meta content were tight spots in the tar acid picture. There were also some petroleum cresylics that have been on allocation because of tight supplies. Natural phenol was still selling in good volume. Synthetic phenol has experienced a fair amount of improvement in recent weeks. There was still adequate capacity to handle all needs, but production has come up to take care of higher demand.

Crude naphthalene was tight domestically, and offerings of imported material have been above market prices here. Domestic buyers resisted higher levels for imported hot-pressed material. The strong demand for phthalic anhydride kept naphthalene in short supply. Industrial refined naphthalene was moving better. Warmer weather has improved the call for ball and flake material. But, a cold spell temporarily delayed this springtime activity.

Refined pyridine and creosote were still relatively slow. Both ortho and p-anisidine were moving steadily for dyestuff intermediate use. Maleic anhydride was fair

Steel production during the week ending April 24 was scheduled to be at 95.5 percent of theoretical capacity, or an index rating of 143.5, according to the American Iron and Steel Institute. This was equivalent to 2,305,000 tons of ingots and castings, compared with actual output of 2,284,000 tons the previous week, 2,262,000 tons one month ago and 1,636,000 tons one year ago.

Basic Products

Benzol—The picture of the market for this aromatic was virtually unchanged. Demand from some directions was sustained well enough to keep most of the production moving along. There were a couple of spotty aspects to the entire picture, however. The call from insecticides was not good for all suppliers.

The volume of insecticides being sold for the domestic and export markets was fairly good and showing some signs of improvement in the past week. Yet, the overall competition in markets like DDT and BHC has caused production cutbacks in some quarters. Consequently, demand for benzol from this direction varied from consumer to consumer.

Synthetic phenol and styrene for synthetic rubber production have proved to be good consuming outlets for the aromatic. Phenolic resins and adhesives were picking up the phenol market. Activity for rubber was high through the first quarter and is showing no sign of any cutbacks.

Creosote—There was ample creosote available to take care of all requirements promptly. Stocks were heavy but there was no indication at a recent railroad bid that there was enough pressure to bring prices down because quotations were the same as previous quarters, it was said.

Some producers related that they saw scattered signs of improvement in demand. But, there was no general pickup yet. And, there still was a lot of room for improvement in the market. Prices have held firmly to previous market quotations. No immediate changes were expected, either in price or the supply position.

Cresylic Acid—Demand for tar acids was still going strong. Producers were moving all of their output without difficulty, in the most used grades. Some of these fractions are in tight supply because of heavy demand from resins and tricresyl phosphate. There was also good call from other outlets.

Coaltar acid, petroleum acid and imported ADF acid were all selling at a strong pace. There was less actual tightness in the market for imported acid. But, suppliers related that business was good and holding up well. Prices of domestic material from either source and ADF acid were firm at previous listings.

Cresols—A well sustained call from the normal consuming channels kept sales up to a good level. Demand continued to be strong for the meta-para fractions. Producers related that there was no sign of a letup in demand.

Prices held firmly to previous levels. No changes in the schedules were currently expected. The grades receiving the most call have been in short supply for several months.

Naphthalene—Domestic crude material was still in a tight position. Producers were moving their output right out to fill orders. The bulk of the supply was going to the phthalic anhydride market, which is continuing to do exceptionally well.

Demand for industrial refined naphthalene, used in the production of such intermediates as b-naphthol, was said to be quite good now. Refined ball and flake material has been getting better inquiries for moth control outlets. This was part of the normal spring buildup.

It was said that there was a good spurt of activity for moth control in the past several weeks, but cold weather in the last few days dampened the demand somewhat. Sales were felt likely to go right back up again for packaged naphthalene after warm weather returns, it was added.

Importers related that crude naphthalene was still in a relatively unsettled position. American consumers strongly resisted prices at a fraction below 7c. per pound and European suppliers were not offering material for the third quarter below 7c. Consequently, there was very little of the 6¾c. material available in the market here.

Phenol—A fair improvement has been noted in this market. The smaller volume natural material had reached a better height faster than synthetic material, but, synthetic USP gained steadily. More capacity was being used to handle the demand and producers appeared to be more satisfied with the market.

Phenolic resins were not only moving well to the automobile industry and other molding applications, but were also getting a little added interest from the start of the spring paint producing season, for varnish applications.

Pyridine—The tar base picture is still softened by the slowness in refined pyridine. Demand for 2-degree material has only shown occasional flurries of greater activity. There has been a reasonable amount of improvement for a few sources for a month or so. But, demand has not been consistent and has not been sustained.

Even though the market is slow and consumption is not substantially improved, some sources noted that the number of customers has increased. The quantities of pyridine they buy are small. But, it is an indication that more potential consumers are aware that refined pyridine is an available chemical, a source added.

Toluol—The moderate volume of nitration material moving to the government for defense requirements has helped to keep toluol in its present position, it was said. Producers were getting more light oil as a result of increased coking operations. To some extent, demand was better from industrial finishes and other outlets for the solvent than a number of trade sources had expected it was going to be.

Price Trends

Advanced

None

Reduced

Monochlorobenzene, 1½c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 23, 1954
114.68	114.68	114.66	114.56

(*For Current Prices see page 9*)

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ending April 24 was as follows:—

Ammonia liquid, NH_3	lbs.	1,077,490
Ammonium sulfate	lbs.	38,943,582
Benzol	gals.	3,725,038
Coaltar	gals.	17,085,919
Creosote oil	gals.	952,349
Naphthalene, crude	lbs.	2,632,155
Pyridine, refined	lbs.	27,707
Toluol	gals.	732,693
Xylol	gals.	195,488

For Late Market Developments, See Page 4

This slight expansion in buying interest also helped maintain the current position. However, there was surplus material around and the market was not felt to be on completely firm ground yet. In general, most sources expected the market to remain at a status quo for the next month or more.

Xylol—Producers said that this market has been holding up rather well. Demand was good for solvent uses in industrial finishes. The pace set by alkyd resins has kept activity up. It was also said that 3-degree and 5-degree material were moving nicely for pharmaceuticals and dyestuff outlets. The dyestuff needs have improved in line with overall better actvity in that direction.

The market position for xylol was felt to be a balanced one. There was an adequate supply to take care of consumer requirements, and, there was no real surplus influencing the market either.

Intermediates

p-Anisidine—Demand has improved for this intermediate as it has for many dyestuff intermediates. Increased textile activity has picked up sales for most of the material that go into the making of dyes.

Not only was the para isomer moving well for this end-use, but, o-anisidine was also enjoying a good sales period. Price schedules of both materials held firm to former levels. Adequate supplies were readily available to take care of consumption requirements.

o-Dichlorobnzene—No revisions were precipitated in prices of ortho following reductions for p-dichlorbenzene and monochlorobenzene. Producers noted that demand has been steady in this market. Sales were holding up very well. Some suppliers were enjoying a little more business than they were doing earlier.

Maleic Anhydride—There has been some improvement in this market. Producers indicated that sales were currently at a fair level. Maleic resins were providing a steady demand and there has been a fairly good call from polyester resins. Demand from polyesters has not fully developed so far. But, trade sources indicated that the market was still growing. Prices were firm without change.

Monochlorobenzene—Prices were reduced 1½c. per pound in a move made last week. The new listings were reported at 8½c. per pound in tankcars, 10c. per pound in carlots and 11c. per pound in l.c.l. quantities.

Phthalic Anhydride — Although there was no real change in the tight market position held by phthalic, producers were generally confident that the squeeze would be over in the next month or so. It was felt that the peak has been reached and the tendency now was toward an easing of pressure.

One cloud on the horizon, was seen in the start of a strike at a producer's facilities that included the production of phthalic. As of press-time, the strike was still in progress. But, negotiations were going on and the length of the tieup was naturally a factor in its effect on the phthalic market.

So far, there has been no appreciable change. Even with the strike, trade sources expected the tightness in the market to disappear, perhaps not as soon, but, eventually. Another consideration was how long activity in the automobile industry would hold to its present pace.

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Stanolind Awards Fellowships For '55-'56 Academic Year

Fifteen colleges and universities have been awarded a total of sixteen Stanolind Foundation fellowships for the 1955-56 academic year. Stanolind Foundation was created and is supported by Stanolind Oil & Gas Company, Tulsa, Okla.

The sixteen fellowships are offered in eight fields of graduate study:—Five in petroleum engineering; four in geology; two in geophysics, and one each in accounting, mechanical engineering, chemical engineering, geochemistry and chemistry. Each fellowship carries a stipend of $1,500 and pays tuition and fees. An additional $500 grant is allowed geology fellows for summer field work.

Chloromethanes Booklet Offered By Solvay Process Division

Solvay Process Division of Allied Chemical & Dye Corporation, New York, has issued a twenty-eight page booklet containing data on uses and physical and chemical properties of the chloromethanes—methylene chloride, methyl chloride, chloroform and carbon tetrachloride. Included are such data as toxicity, azeotropic information, flammability, solubility, shipping, handling and storage. Copies may be obtained without charge through the advertising and sales promotion department of Solvay.

River Plate Corp. Moves Its Biddle Sawyer Division

River Plate Corporation has moved its Biddle Sawyer Division to a newly-constructed office building, adjacent to its plant facilities in Newark, N. J. At the same time, River Plate has announced the appointment of Robert A. Baldini as assistant manager of the Biddle Sawyer Division, in charge of wax sales. Previously Mr. Baldini headed the wax and oil department of W. R. Grace & Co., New York, for six years.

Velsicol Shifts N. Y. Office

Velsicol Corporation, a division of Arvey Corporation, Chicago, has moved its New York sales offices to larger quarters in the Empire State building. The company stated that the move had been made due to increasing activities in foreign markets, as well as growing sales in the eastern part of the United States.

Lignite Deposits Are Mapped By Department of Interior

More than 491,000,000 tons of strippable lignite reserves west of the Yellowstone River in Dawson and Richland Counties, Mont., have been mapped by the Geological Survey, Secretary of the Interior Douglas McKay announced last week. The report, titled "Three Deposits of Strippable Lignite West of the Yellowstone River, Montana," by William C. Culbertson, has been published as bulletin 995-H of the geological survey. Copies may be purchased from the superintendent of documents, Government Printing Office, Washington 25, D. C., at 50 cents each.

Commercial Solvents Corporation Adds 2 to Industrial Sales Staff

Commercial Solvents Corporation, New York, has announced the appointment of William J. Shea and Nicholas Lentine to the sales staff of the industrial chemicals department, a unit of the petrochemicals division.

Mr. Shea was formerly with E. F. Drew & Co., and Turco Products, Inc. He has been assigned to the Chicago office. Mr. Lentine, who has been with Commercial Solvents since 1949 handling pharmaceutical sales, has been assigned to the Detroit office.

Bids Wanted

Aluminum sulfate, approx. 25,000 lbs., as required during FY 1956, inv. 2, May 3, Vets. Adm. Hospital, Contracting Officer, Murfreesboro, Tenn.

Carbon dioxide, solid, (dry ice), as required during FY 1956, inv. 10, May 6, Vets. Adm. Hospital, Supply Officer, 5901 E. 7th St., Long Beach, 4, Calif.

Paint, various types enamel and paint, inv. 3G-60501, May 2, Gen. Services Adm., Business Service Center, 7th & D Sts., S.W., Washington, D. C.; lacquer, surfacer, thinner, 10 items, inv. AVI-10, May 5, Contracting Officer, Sacramento Signal Depot, Calif.

Phosphorous, white, 10,500,000 lbs., inv. 62, Apr. 28, N. Y. Chem. Procurement District, 180 Varick St., N. Y., N. Y.

Polymyxin, 40 billion units, inv. 37, May 9, Chicago Chem. Procurement District, Room 909, 226 W. Jackson Blvd., Chicago 6, Ill.

Rock salt, crushed, for period from July 1, 1955, thru June 30, 1956, inv. 9, Apr. 28, Vets. Adm. Center, Supply Officer, Martinsburg, W. Va.

Sodium chloride, rock, gran., 640,000 lbs., as required during FY 1956, inv. 3, May 3, Vets. Adm. Hospital, Contracting Officer, Murfreesboro, Tenn.

Sodium metaphosphate, 1,650 100-lb. bgs., Somersville, N. J., Hines, Ill., Wilmington, Calif., inv. S-328, May 3, Vets. Adm., Procurement Div., Supply Service, Vets. Adm. Bldg., Washington 25, D. C.

Trichlorethylene, 8,450 lbs., inv. 109, Apr. 27, Sacramento Signal Depot, Sacramento, Calif.

Trisodium phosphate, 100 lbs., inv. 11040, May 2, Gen. Service Adm., Business Service Center, Denver Fed. Center, Denver 2, Colo.

Obituaries

Harry Campbell

Harry Campbell, former vice-president of Sinclair Refining Company, New York, died April 15 in Glenside, Pa. He was seventy-two years old. Mr. Campbell joined Sinclair in 1922 and helped develop one of the first high speed oil tankers. He later became manager of the firm's marine department.

Dr. Albert Einstein

Dr. Albert Einstein, world-famous physicist whose theory of relativity led to the development of the atomic bomb, died April 18 in Princeton, N. J. He was seventy-six years old.

Dr. Einstein published his first version of the relativity theory in 1905, and in 1921 was awarded the Nobel Prize for physics. Some of his works included: *The Meaning of Relativity, Builders of the Universe,* and *Evolution of Physics.* He became director of the Institute of Advanced Studies at Princeton University in 1933. The noted mathematician received one of the highest American scientific honors, the Franklin Institute Medal, in 1935. After his retirement in 1945 he continued his studies and helped to develop television.

George H. Phillips

George H. Phillips, retired vice-president of Devoe & Raynolds Company, New York, died April 15 in St. Petersburg, Fla. He was ninety-five years old. Mr. Phillips joined the paint manufacturing firm as an errand boy in 1874. He later became manager, director, and vice-president and retired in 1929.

Leo G. Ryan

Leo G. Ryan, chairman of the board of Monsanto Canada, Ltd., died April 13. He was in his 78th year.

Mr. Ryan was instrumental in founding Monsanto Canada and other industrial organizations. He was president of Monsanto Canada from its inception in 1932 and was appointed chairman of the board in 1948. The company's research laboratories, erected in 1952 were named in his honor. Mr. Ryan served as an officer and director of a number of Canadian industrial and financial institutions.

Dr. Frank J. Stockman

Dr. Frank J. Stockman, senior vice-president of Winthrop-Stearns, Inc., New York, died April 17 in Ponte Vedra, Fla. He was sixty-eight years old.

Dr. Stockman joined Winthrop-Stearns, Inc. in 1925. He served as medical director of the company and, in 1931, was elected vice-president. He was also director of clinical research and supervised Winthrop's medical advertising program. From 1921 to 1925 he was assistant director of the American Institute of Medicine. He was at one time an assistant to the editor of the *Journal* of the American Medical Association and associate editor of *International Medical and Surgical Surveys.*

Claude G. Bennett, formerly an engineer for United States Metals Refining Company in Cartaret, N. J., died April 19 in Rahway, N. J. He was seventy-four years old.

Roy S. Bonsib, former director of accident prevention and industrial hygiene for Standard Oil Company (N.J.), New York, died April 20 in White Plains, N. Y. He was sixty-nine years old. Mr. Bonsib retired from Standard in 1951.

F. A. Gildemeister, Peruvian sugar producer and oil man, died April 15 in Lima, Peru. He was sixty-five years old. He was president of Compania Petrolera Peruana.

Fred D. Ostrander, one of New York state's oldest active pharmacists, died April 18 in Gloversville, N. Y. He was eighty-nine years old. He was honorary president of the New York State Pharmaceutical Association.

John Polachek, president and founder of General Bronze Corporation, New York, died April 16 in that city. He was eighty-two years old.

Edmond Schaaf, sales representative for Shamrock Chemical Corporation, New York, died April 10 in Queens Village, N. Y. He was sixty-four years old.

Palmer Smith, scientific writer and editor for the Department of Agriculture, died April 16 in Washington, D. C. He was sixty-three years old.

Elmer W. Wand, accountant for Anaconda Copper Mining Company, New York, died April 16 in Rahway, N. J. He was fifty-five years old.

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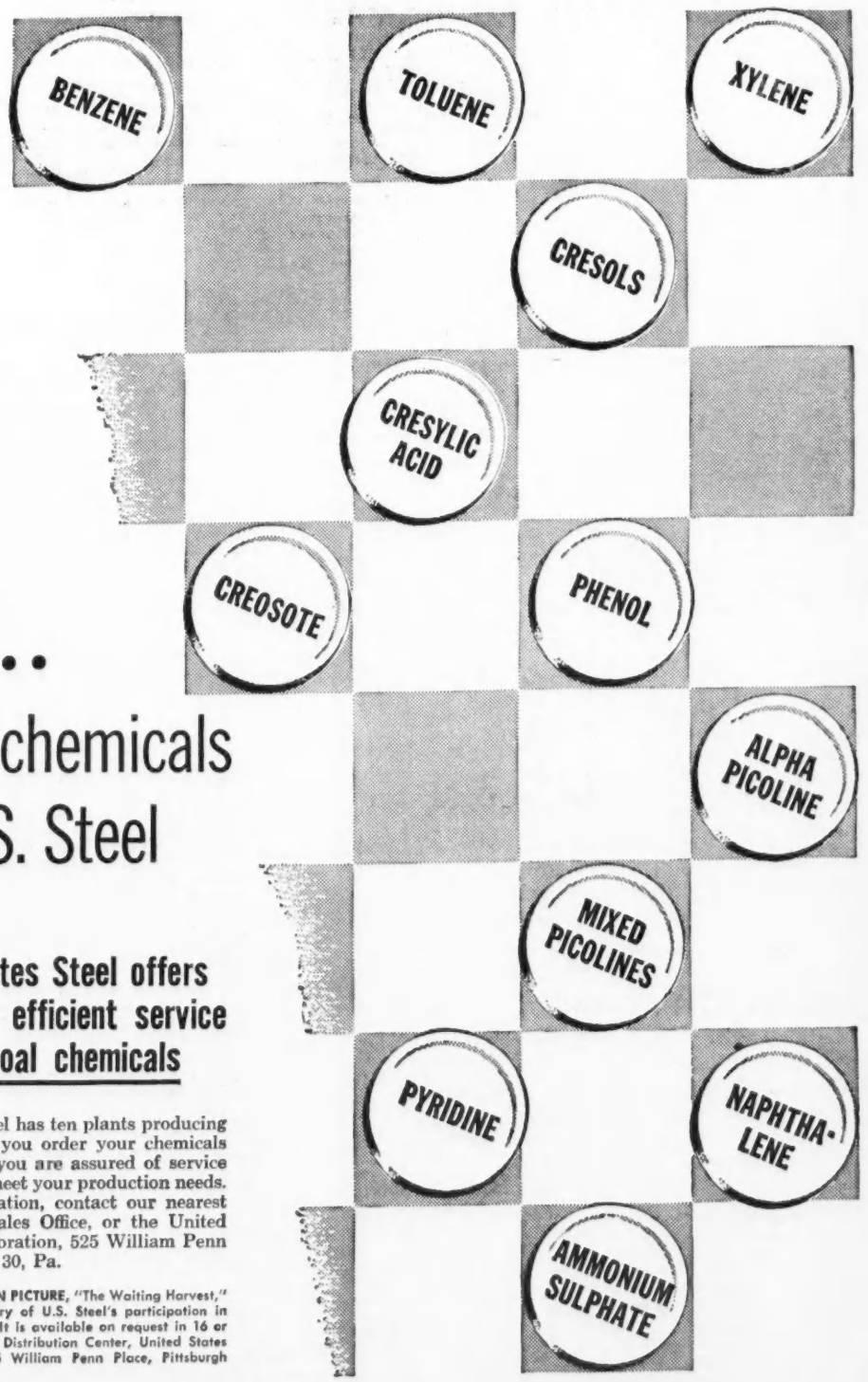

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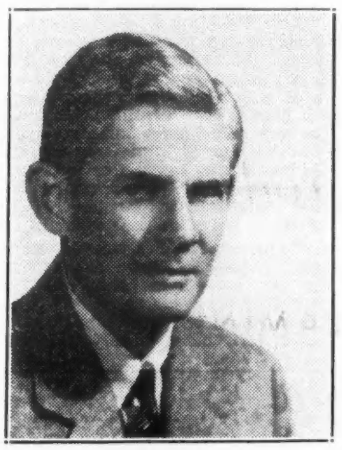
American Drug Manufacturers Association

Forty-Third Annual Meeting

Boca Raton, Florida, April 13-15



Dr. J. H. Fitzgerald Dunning
ADMA's New President

A. H. Fiske
Retiring President

American Drug Manufacturers Association at its forty-third annual meeting in Boca Raton, Fla., elected Dr. J. H. Fitzgerald Dunning of Hynson, Westcott & Dunning, Inc., Baltimore, Md., as its new president. In so doing, ADMA inaugurated a new policy calling for a one-year term for president. In the past the association has elected its presidents to two-year terms. Dr. Dunning succeeds A. H. Fiske of Eli Lilly & Co., Indianapolis, Ind. Three new association vice-presidents were also elected. They are Francis Boyer of Smith, Kline & French Laboratories, Philadelphia; James J. Kerrigan of Merck & Co., Rahway, N. J., and L. D. Barney of Hoffmann-La Roche, Inc., Nutley, N. J. Harry J. Loynd of Parke, Davis & Co., Detroit, Mich., was re-elected a vice-president. M. C. Eaton of Norwich Pharmacal Company, Norwich, N. Y., was re-elected treasurer of the association. Dr. Theodore G. Klumpp of Winthrop-Stearns, Inc., New York, and Eugene N. Beesley of the Lilly company were elected to three-year terms on ADMA's executive committee, replacing Mr. Boyer and Mr. Barney. Re-elected to another three-year term was W. G. Malcolm of Lederle Laboratories Division, American Cyanamid Company, New York. W. L. Dempsey of Sharpe & Dohme, division of Merck & Co., Philadelphia, was named to a two-year term on the executive committee, replacing Mr. Kerrigan. Dr. E. H. Volwiler of Abbott Laboratories, North Chicago, Ill., was chosen for a one-year term on the committee, succeeding Dr. Dunning. Dr. Karl Bambach was re-elected executive vice-president.

The drug industry will cooperate wholeheartedly with the federal government in working out a program to insure efficient and equitable distribution of available Salk polio vaccine during the next three months when initial demand may exceed supply.

So pledged Dr. J. H. Fitzgerald Dunning of Hynson, Westcott & Dunning, Inc., Baltimore, Md., as his first official action upon being elected president of the American Drug Manufacturers Association. Dr. Dunning assumed the ADMA presidency at the association's forty-third annual meeting, held April 13 to 15 at the Boca Raton Club, Boca Raton, Fla., in the wake of the momentous Francis report which pronounced the Salk vaccine effective in preventing paralytic poliomyelitis.

Dr. Dunning, whose firm is not one of the six companies making the Salk vaccine, pointed out that the American pharmaceutical industry has had previous experience in meeting the problem of initial scarcity of new drugs. He noted that individual concerns in the industry launched a long series of important life-saving drugs in the past fifteen years, and that all shortages and other difficulties experienced at the outset have been rapidly overcome.

Position of World Leadership Cited

During this period, the ADMA president added, the US pharmaceutical industry has achieved world leadership in the production and distribution of dramatic new therapeutic agents. This leadership,

Dr. Karl Bambach
Executive Vice-President

he said, is a tribute to the scientific skill of American medical researchers and the technical ability of the vast number of people who produce and distribute the nation's pharmaceutical supply.

Even more important, Dr. Dunning said, the position of the American pharmaceutical industry in the world of medicine today is proof that our country's way of doing things provides more drugs in a shorter space of time than is possible under any other economic or political system.

"Under this system," he went on, "the industry already has, in various stages of production, a large quantity of Salk polio vaccine. The six producing companies individually undertook the grave financial risk involved in developing the necessary production facilities and in producing this vaccine in advance of the Francis evaluation report.

"If the producing firms had not undertaken this risk, they would be starting from scratch today instead of facing the problem of how to equitably distribute what we have on hand. In addition, the industry would not be in a position to promise increased supplies at the end of another ninety days.

"The producing companies received assistance in undertaking this calculated risk in the form of a purchase commitment made by the National Foundation for Infantile Paralysis last fall, as a means of encouraging the development of production facilities and initial supplies at a time when no one knew the ultimate outcome of the foundation's mass trials conducted last summer.

Risk Taken by Firms Stressed

"If the Francis report had been unfavorable," Dr. Dunning pointed out, "the producing firms would have been faced with the loss of millions of dollars. They willingly undertook this risk as part of the pharmaceutical industry's overall responsibility to provide this nation and the world with the most and best drugs known to medical science. This is just another in a series of recent examples of the industry's role in translating the dramatic discoveries of scientific researchers from the laboratory test tube into medication available in every city, town and hamlet in the nation where people need it.

"It is important for the public to understand," Dr. Dunning emphasized, "that it takes at least ninety days to produce and adequately test a batch of polio vaccine. The producing firms are going ahead at full speed, and we believe that our record merits confidence and understanding as we do everything possible to handle the situation."

There is a possibility that the government may shift its regulatory control over veterinary biologicals from a system of resident inspectors, always present in a plant, to control by occasional factory inspections and spot tests of products, Dr. Karl Bambach, ADMA executive vice-president, indicated in his report to the convention.

[Dr. Bambach's prediction was confirmed in a later address last week by Dr. M. R. Clarkson, deputy administrator of the Agricultural Research Service, before the Animal Health Institute. See separate story on page 51]

Would Result in Uniformity

Should the Agricultural Research Service of the Department of Agriculture, which licenses animal biologicals, take such a step, Dr. Bambach pointed out that it would bring USDA's regulatory policy more closely into line with that of the National Institutes of Health. NIH has jurisdiction over biological products for human use.

"In order to carry out control tests on veterinary biologicals," he continued, "the Department of Agriculture would need an adequate laboratory. Members of the ADMA executive committee and the biological section have discussed this requirement with government officials on a number of occasions. Whether or not the industry would feel it advisable to support a request for congressional appropriation of funds for such a laboratory depends primarily upon the type of regulatory program which would be planned around the laboratory.

"A regulatory program requiring check testing of each batch of veterinary biologicals," Dr. Bambach declared, "would be impractical, unnecessary, and would stifle progress. On the other hand, a program of spot tests and occasional factory inspection, similar to those of the Food and Drug Administration and the laboratory of biologics control of the National Institutes of Health, would be a decided improvement. In addition, an acceptable government laboratory activity would involve development of minimum standards for products, improved testing methods, and other means of cooperation with industry."

Medical Advisory Panels

Turning to FDA activities, the ADMA executive vice-president noted that the agency's establishment of medical advisory panels has given the drug industry an opportunity to present its medical views on the same basis as those of government, the professional societies and the universities. Thus, the industry is given a chance to present its views to FDA at the same time that other professional groups are heard.

Previously, he stressed, qualified medical authorities connected with medical firms were able to express their views only as individuals, except for those cases involving association action. Pointing out that the exchange of views under the panel system takes place in advance of FDA policy decisions, Dr. Bambach said that "the industry supports this procedure enthusiastically, and hopes it will be continued."

"The first medical advisory panel convened by the Food and Drug Administration," he reported, "was asked to study and report on the intrinsic factor-vitamin B_{12} situation. This has been done, and although no official governmental policy statement has yet been issued, it seems that the work of the panel clarified the regulatory situation. Recently another medical advisory panel met in Washington, on the labeling and use of preparations containing salicylates.

Reasonable Success Reported

"As trial runs, it appears that both of these panels have been reasonably successful. Judging from a number of comments on the general procedure followed, I think that two constructive suggestions can be made. If representatives invited to serve on a medical advisory panel are given a rather complete and detailed description of the specific problem ahead of time, they can come to the panel meetings better prepared to do good work. Also, medical advisory panels should attempt to focus their consideration of problems on areas where the Food and Drug Administration has the statutory authority to enforce the decisions which it may later reach."

Dr. Bambach indicated that the biological section is setting up a committee "which will give greater attention to pharmacological assays, microbiological procedures, sterility tests and related problems." The group, he said, is maintaining close liaison with the combined contact committee.

"This plan," he emphasized, "can be successful only if member firms send to biological section meetings their specialists in the technical fields indicated. In other words, we should emphasize the fact that participation in the valuable work of the biological section should not be limited to those firms licensed by the government to produce biological products, but should include representatives from all companies manufacturing a diversified line of injections and products requiring microbiological and pharmacological technics."

Comments on Decertification

FDA has indicated initial approval of the association's proposed criteria for the decertification of antibiotics and antibiotic

John K. Worley
General Counsel

dosage forms under existing law, John K. Worley, ADMA general counsel, stated. An informal progress report recently received by the association from FDA, Mr. Worley said, included a comment "that the proposed industry criteria seem reasonable, as far as evaluation of certification experience is concerned."

Reviewing the decertification controversy, Mr. Worley pointed out that it is one of long standing. "The demand for decertification," he said, "is based upon a simple, definite consideration. Section 507 of the food, drug and cosmetic act authorizing certification also includes a provision specifically requiring that certification be dropped when the procedure is no longer necessary to insure safety and efficacy of use with respect to any antibiotic. If the manufacture of antibiotics has progressed to the point where certification can support no useful purpose, so far as the public health is concerned, it has been the view of this association that there is no lawful justification for its retention.

ADMA Criteria in Two Parts

"Following the authority given to Mr. Roland Noel by the executive committee, he and his special technical committee of the legislative section undertook the very large task of assembling the monographs on antibiotic products which are now the subject of certification, as suggested by Dr. Henry Welch, and all of the various certification data furnished by the FDA.

"The result was a report suggesting to the Food and Drug Administration criteria under which antibiotics and antibiotic dosage forms could be exempted from certification under existing law; and requesting a formal opinion or suggested criteria from the FDA concerning same. Based on manufacturer competency, the proposed criteria of the special technical committee were divided into two parts,

one covering the basic antibiotics and the other the dosage forms.

"Under the ADMA proposal," Mr. Worley explained, "both basic antibiotic and dosage forms could be exempted from certification after experience had shown no more than a certain ratio of rejections to lots certified. In no event could any basic product be exempted in less than two years from the date of issuance of the monograph. Dosage forms could not be decertified under one year from issuance of the monograph, or until the basic antibiotic or the sale from which it is made, was exempted.

How to Gain an Exemption

"In order to gain an exemption, a company's record would have to show no lots rejected out of 130 certified; not more than one rejection out of 210 certifications; not more than two rejections out of 290 certifications; not more than three rejections out of 370 certifications; not more than four rejections out of 450 certifications; not more than five rejections out of 530 certifications; not more than six rejections out of 610 certifications; and not more than seven rejections out of 690 certifications. The rejection record beyond this point must not exceed 1 percent of the lots certified."

Turning to the question of coaltar colors, the ADMA general counsel recalled that hearings were held more than a year ago on the delisting of FDC oranges No. 1 and 2 and red No. 32 from the list of certified colors. Following that, he went on, proposed delisting rules were issued and ADMA filed exceptions and a brief in opposition mainly supporting more extensive exceptions and briefs filed by Eli Lilly & Co. and the coaltar industry committee.

"All of the briefs," he said, "attacked the legal theory of FDA that colors permitted for use in foods and drugs must be harmless, per se. We believe that a test of harmlessness under the conditions and in the amounts generally used, should be established. The record did not support any finding that the amounts of these colors used in foods and drugs were harmful. Massive doses were used by FDA technicians to prove the colors were not harmless. The outcome is not yet certain."

Italian Patent Law Situation

On the question of another long-standing and important drug industry problem —the Italian patent law situation—Mr. Worley reported that a number of meetings have been held during the past year. The association, he said, has drawn up statements indicating the kind of new Italian patent law wanted by the American pharmaceutical industry. The State department, which has been asked by ADMA to make the association's views known to the Italian government, has been "sympathetic and helpful," the general counsel said.

"It has informed the US Embassy n Rome of the government's policy in this matter, which is favorable to the association's position," Mr. Worley reported. "The Commission of Patent Appeals in Italy by appropriate decisions, has established the validity of pharmaceutical process patents, has remanded several cases, and instructed the Italian Patent Office to issue many of the patents that have been pending for a number of years. Most of these cases have been appealed to a higher court, but a few patents have issued. A commission appointed by the Italian authorities and headed by Signor Pennetta, has drafted a new patent law.

"The association's views concerning this new patent law have been made known to this commission both unofficially and through the embassy. The situation is far from completely settled at this time. However, it is being closely watched and we believe it is progressing in the right direction. As everyone knows, if the present situation is permitted to continue, much of the remaining foreign trade profits that can now be anticipated from patentable new products arising out of our extensive and expensive research may be pirated from our member firms. This has been the case for a number of years in Italy, and up to the present time."

M. C. Eaton

Re-Elected Treasurer

California Pharmacy Board Case

Reporting on the California Board of Pharmacy case, Mr. Worley recalled that last August the board suggested putting all antihistamines, somnifacients and adrenergic drugs on a prescription-only basis. Following an association protest, he said, the board indefinitely suspended the effective date of the regulation. However, he went on, "a much more troublesome problem is still unsettled in California"—whether or not it is necessary for branch wholesale and similar establishments handling drug products in that state to be under direction of a registered pharmacist.

"At least one of our member firms," he said, "has been called on the carpet by the State Attorney General in this regard. A senate bill has been recently introduced by Sen. Kraft which specifically gives full authority to the board to exempt the hiring of registered pharmacists in such establishments. This bill is not entirely satisfactory and has been protested by the association."

In a discussion of income tax relief on foreign income, the ADMA general counsel called attention to the work of the association's joint tax committee, which has worked "to simplify and liberalize the tax treatment of income derived from foreign sales so that bona fide sales of US products to foreign buyers for use or consumption outside the US where there is a substantial business investment abroad, would be taxed at preferential rates in order to encourage foreign trade and with due deference to the greater risks involved in such transactions."

Unanimity This Year Cited

"A number of meetings have been held during the association year," he went on, "for the purpose of preparing a statement of association desires in this regard. Representatives of the American Pharmaceutical Manufacturers' Association and the Proprietary Association have been solicited to join this association in our efforts to obtain tax relief in this regard. They have tentatively agreed to our statement. Association views, supported by the other associations, have been presented to the National Association of Manufacturers' and Chamber of Commerce tax committees, as well as to the National Foreign Trade Council. Thereafter, and with the unanimity which we did not have last year, we hope to receive favorable attention from congress during its current session. The association will present statements to the proper committees of congress, supporting the views of the NFTC and other groups."

Commenting on the S. J. Res. 19, which would shift the Bureau of Narcotics from the Treasury Department to the Department of Justice, Mr. Worley stated that ADMA's view is "that the transfer would endanger the proper distribution of narcotics through legitimate channels to the end that when human suffering exists, narcotics may be immediately available for administration by appropriate professional personnel."

The time is ripe for an all-out public relations program by the "medical care" team, A. H. Fiske, retiring ADMA president, declared. It is a paradox today, he said, that "when the American people are enjoying better health and longer life

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magnesium sulfate	10.00	cobalt sulfate	0.02

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The results confirmed previous findings of Dutch investigations which have been widely publicized. Bo-Dee Mineral Stable D-3 remained unchanged for 12 months in the presence of this mineral mixture where ordinary D-3 lost almost all of its potency in 105 days. Full detailed report of the experiments will be mailed on request.

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than ever before in history, the individuals and groups to whom much of the credit for this belongs are subject to public criticism and censure as never before."

Mr. Fiske, who is with Eli Lilly & Co., Indianapolis, Ind., felt that it is readily apparent that the "medical care" team must not only continue to do an outstanding job, but must also find a way to get public credit for doing so. "Both of these conditions—doing a creditable job and getting credit for it—are necessary for good public relations," he said. "And good public relations are an essential ingredient to the continuation of our free enterprise system of medical care."

The speaker was of the opinion that the public relations problem must be considered as a two-part question. "In the first place," he said, "as drug manufacturers we apparently do not have broad understanding and appreciation by the public as to our group's contribution to better health and longer life.

Industry Seen Sharing Blame

"Secondly, as a group we manufacturers seem to be sharing to a noticeable extent in the blame and criticism directed toward any and all aspects of medical care in these United States. The implication is that as drug manufacturers we are not considered to be separate and apart from the other agencies or groups connected with medical service. In the average person's mind we are part and parcel of the health service which he receives. We are one end of the Physician-Hospital-Wholesaler-Retailer-Manufacturer 'Health Production Line.' (Whether we are considered the head end or the tail end, I sometimes wonder.)"

There are two main approaches to this problem, Mr. Fiske felt. "First," he said, "as leaders among drug manufacturers we should throw our strength behind all appropriate efforts to see that the industry continues to do the best possible job of manufacturing and distributing good medicines and to see that the industry finds ways to get public understanding of and approval for the manufacturing job being done.

"In the second place," he went on, "we should exert our best efforts in all appropriate ways to help accomplish these things for the entire medical care team—that is, best possible performance and public credit for such performance. For if in the mind of the public it is the overall service that counts (and this would seem to be a very logical way of looking at the matter), then we have a vital interest in everything that will produce greater public satisfaction with the overall health production line."

ADMA's Special Committee

To cope with this public relations problem, he said, the association last year appointed a special committee. While a number of bids were received to undertake publicity projects of various kinds—books, movies, advertising programs—Mr. Fiske reported that the committee came to the conclusion that the proper course of action has two prerequisites.

"The first of these," he explained, "is a thorough appraisal of public opinion. We all have some ideas and opinions concerning what the public thinks of us; and there are many eager souls outside our ranks who purport to know what's wrong with our public relations and who, for a fee, will be glad to undertake to remedy it. Actually, much more needs to be known about public opinion concerning our industry and medical care in general before we can accurately evaluate the nature and extent of public misunderstanding and disatisfaction.

"The second prerequisite to effective public relations action by our industry is the drawing together of all of the major groups concerned with the public relations of the medical service team. In other words, the job is not one to be tackled alone by the ADMA or by the drug industry alone. The job requires the cooperative efforts of all the groups directly concerned."

HIF Research Study Cited

Mr. Fiske reported progress toward meeting these prerequisites. The Health Information Foundation, he noted, has commissioned another research study to determine public attitudes about medical and health care. To be conducted by the National Opinion Research Center of the University of Chicago, the study will get under way this spring. Preliminary tabulations are due before the fall, he said, with a detailed final report scheduled for next year.

Explaining how this study will be conducted, Mr. Fiske reported, "A sample of the adult population—selected by scientific sampling technics to assure a group which will accurately reflect the characteristics of the total population—will be systematically questioned by trained interviewers. Answers will reflect how the public feels about physicians, dentists, hospitals, drugs and medication, and health insurance. The attitude of people on drug costs will be part of the study.

"In addition to this sample of the general population," he continued, "representative physicians and pharmacists will be questioned on their experience with the public's knowledge, attitudes, and practices with regard to health and illness and on their views as to desirable, specific goals of health and illness and their views as to desirable, specific goals of health and education programs. Once combined, the analytical results from all groups of interviews—public, physicians and pharmacists—will provide a comparative description and an understanding of attitudes toward health services which could not be obtained from data pertaining only to one or two of them."

Opportunities Ahead Listed

There are great opportunities ahead in public relations, Mr. Fiske felt, once a viewpoint and a philosophy have been developed. As samples of the projects within reach, he cited:—

- An offer by a major publishing firm to have a popular author write a book on the drug industry as part of its modern history series.
- A number of proposals for motion pictures on modern medicines, pharmaceutical research and like subjects.
- A comprehensive newspaper advertising campaign.
- A project for using a new film technic, cineramic slides, to tell the drug industry's story to various important groups.

Bradshaw Mintener, assistant Secretary of Health, Education and Welfare, hinted that HEW may be thinking favorably of ADMA's decertification criteria proposals. Noting that FDA has already exempted fifteen antibiotics or groups of antibiotics from certification, Mr. Mintener felt that others can be added to the exempt list and that such action "has been delayed and is overdue."

"Some of the delay," he said, "has been caused by lack of agreement on criteria for decertifying. I am sure the process of exemption can be hastened by setting up the criteria for exemption in a definite form, so that the action required by the law will be taken promptly when

Francis Boyer

Elected Vice-President

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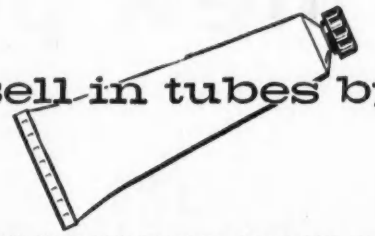

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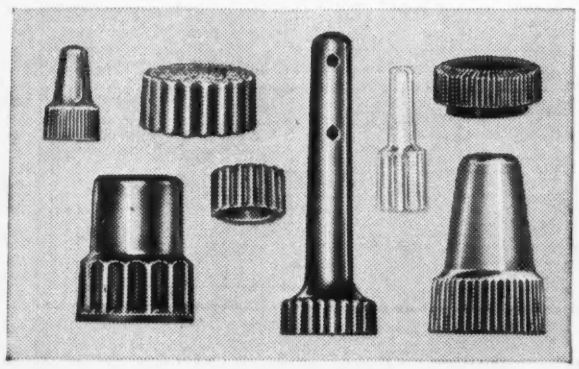

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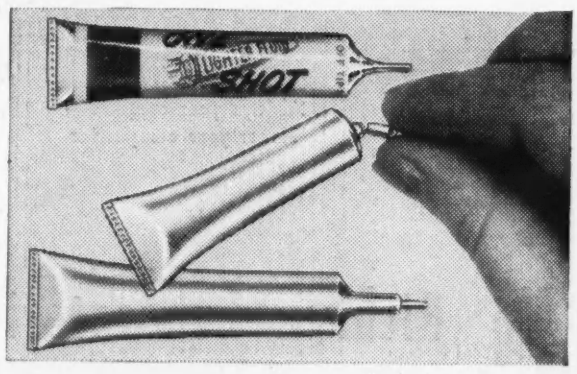

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there is a showing that the requirements for exemption have been met." Mr. Mintener added that this idea is in line with the recent recommendations made by ADMA.

Despite this apparent indication that HEW plans to go along with the drug industry on the question, Mr. Mintener gave over a major portion of his address to a spirited defense of certification. He noted that a Hoover commission task force had recommended that FDA discontinue the testing and certification of antibiotic drugs and coaltar colors. The stoppage of such activities, the secretary declared, would not be a saving which could be applied to other FDA activities. Nor, he said, could the personnel be shifted to other work unless appropriated funds were made available for such work.

Agency's Fees Discussed

"I want to spell this out," Mr. Mintener said, "because I have received some communications from industry which indicate that there is some misunderstanding about the certification funds. It is not true that FDA must rely upon the certification funds for general enforcement purposes or for any purposes except activities connected with certifying the safety and efficacy of these antibiotic drugs. It is not true that the actual cost of certification is substantially less than the fees collected. The fees are, in fact, adjusted to cover the costs of the certification service. That is about $750,000 per year, or about 7/100 of one cent per dose of the drugs which are currently being certified.

Certification and FDA's Other Duties

"Now, there is a connection or relation between the certification service and FDA's other responsibilities for the inspection of drugs. The production of antibiotics has grown to the stature of a new drug industry. It now accounts dollar-wise for approximately one-half of all the prescriptions written in this country. Antibiotics—used to a great extent to treat or prevent serious illness—are of critical importance to health.

"If these drugs were no longer certified," he went on, "FDA would then have this large and important segment of the drug industry added to its general workload without the funds to pay for this additional work. In view of the importance of antibiotics, this would mean that FDA would have to discontinue other work, such as checking on sanitation in food plants, in order to carry on some kind of effort to assure the safety and efficacy of antibiotics. The net effect would be less protection for the consumer, not only on antibiotics but on foods and other products."

"A number of the producers of antibiotics," the secretary said, "are opposed to the certification of these drugs. They say, that they have now learned how to make antibiotics which meet the specifications in all respects and that it is no longer necessary for them to be certified to protect the public. They feel it is a discrimination to pay for certifying antibiotics when other drugs are not controlled in this manner. Some are opposed in principle; they say that the drug manufacturer should take all the responsibility, with the government playing only the role of a policeman.

Effectiveness of Control Hailed

"I think there is no disagreement that certification is the most effective of the different methods of drug regulation," Mr. Mintener asserted. "Every batch is tested before release for shipment, and thus the government guarantees to the physician that the drug he uses was fully potent and free from adulteration when it left the factory. This is an important assurance for the manufacturer as well as the physician and his patient, and there are many drug firms which are definitely in favor of having it continued.

"Certification is a 'preventive' type of regulation. It is an arrangement which is cooperative and educational—rather than punitive—in nature. When a defective batch is tested and rejected by FDA, a violation is prevented from happening. Several hundred or perhaps several thousand patients are also prevented from receiving a defective drug. On the other hand, in the case of drugs which are not certified, the FDA inspectors usually can discover a violation only after the damage has been done, when they get a complaint that is traceable to the drug, or if they routinely pick up a sample that is defective. The odds against either of these happening are great, and in these circumstances a recall program is usually necessary.

Risk Is Not Completely Eliminated

"Certification does not eliminate all risk in the production and use of antibiotics," the HEW official conceded. "Research and controls can never be a complete substitute for experience, and there have been instances where unforeseen developments require changes in the directions for using these drugs. But certification does help to reduce the risk factor to a minimum.

Bradshaw Mintener

"The Hoover task force report suggested that antibiotics could be controlled under the 'new drug' section of the federal food, drug, and cosmetic act. It is true that new antibiotics have been marketed under the new drug regulations, but certified antibiotics are specifically exempted by the law from all provisions of section 505, the new drug section, and it is our view that when decertified they are still exempt.

Complexity of Question Noted

"To certify or not to certify is one of the most complex questions I have ever run into. The record of the discussion between FDA and your industry shows how many angles it has. The law does not define the kind of drugs which need the double check of certification. It merely singles out some of the antibiotics which must be certified and provides that the secretary shall exempt these antibiotics from certification when it is no longer necessary to insure safety and efficacy of use. Specific criteria are not spelled out

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in the law for such exemptions, but they can be broadly stated."

The HEW secretary's decision, he pointed out, must be based not only on the competency of manufacturers, but on these factors as well:—

Factors in Secretary's Decision

- The toxicity of the drug involved.
- The extent of its use in serious and crippling diseases.
- The adequacy of controls to prevent improper labeling and use when the drug is decertified.
- The fact that antibiotics, in general, are products of living microorganisms and subject, therefore, to unpredictable variations inherent in fermentation processes.
- The need for constant check on assay technics because they are primarily biological precedures.

The willful waste of its potential in trained "brainpower" can be checked by the drug industry in three simple and relatively inexpensive steps, Dr. W. Paul Briggs, secretary and executive director of the American Foundation for Pharmaceutical Education, suggested.

"First," he said, "we must create wider interest and better understanding in the opportunities in pharmacy as a career. Through truthful, but dramatic measures, we must make more young people want to study pharmacy. We need more superior men now. We will need them even more acutely in the near future—in the practice of pharmacy, and in our trade and industry.

Staffing of Pharmacy Schools

"Second, we must insure that our colleges are staffed and prepared to properly train practitioners of pharmacy, skilled teachers and scientists.

"Third, we must accept the responsibility of meeting, where necessary and without government subsidy, a fair share of the costs of education, when beyond the means of superior individuals seeking their place in the world of pharmacy."

Pinpointing the problem, Dr. Briggs cited a recent New York study, which found that one out of five high school students "judged as 'Ph.D. material,' does not plan to even enter college." Forty percent of students deemed capable of college study below the doctorate level, he went on, do not plan to go to college. Dr. Briggs thought it likely that these proportions are an accurate measure of the situation across the country.

"Only one-tenth of our young men receive a college education," he said. "But one-third are mentally capable of completing college. Herein lies a shocking waste of a natural resource that even this abundantly blessed nation cannot afford. By comparison, soil erosion, ruthless timber cutting and dust bowls become only trivial wastes."

Foundation Accomplishments Since 1942

The foundation, he said, has met this problem of dwindling skilled manpower problem head on. Since 1942, he went on, "the foundation has devoted its efforts to providing all of pharmacy with the basic ingredient of people—people trained for retail pharmacy, for store management, for wholesaling, for teaching and scientific services." These, Dr. Briggs said, are some of the group's accomplishments:—

"Over 1,000 of today's practicing pharmacists were recipients of foundation undergraduate scholarships.

"One hundred forty-two talented and well-trained teachers, who received their graduate degrees as foundation fellows, are teaching in seventy of our colleges of pharmacy.

"Fifty-eight foundation trained Ph.D.s are at work today in the plants of thirty-one American drug and chemical manufacturers. Of the fifty-eight foundation fellows in your industry, forty-two are associated with twenty ADMA member firms.

"Since 1946 the foundation has provided 314 graduate fellowships to outstanding scholars. During the current academic year, eighty-nine fellowships were awarded, in thirty universities, to superior men to prepare them for careers as teachers or researchers in pharmacy. It is quite likely that many of these highly qualified and deserving students could not have developed their talents to the maximum without financial aid from the foundation.

Business Administration Fellowships

"The foundation, through its support of the Pharmaceutical Survey, awakened interest in better college training in the business subjects of pharmacy. Three years ago, the foundation established a program of teaching fellowships in business administration. This program is helping to produce an adequate number of business-minded teachers, so that tomorrow's pharmacist will be trained as a good business man, as well as a good professional man.

"At the annual meeting last month," Dr. Briggs disclosed, "the foundation carefully reviewed the urgent manpower needs of pharmacy. Because of declining enrollments in our colleges of pharmacy, the board of directors endorsed a long-range student recruitment plan of the American Association of Colleges of Pharmacy. It agreed to finance the program, which may cost $100,000 over the next three years. Even prior to this action, the foundation has been steadily working to interest superior young men in pharmacy as a career. We believe that this total effort will be effective in reversing the alarming trend of the past five years, and bring adequate numbers of good students into our colleges."

Drug Business for 1955 Forecast

The drug industry will do $3,300,000,000 worth of business at the retail level this year, Dr. Charles F. Roos, president of the Econometric Institute, New York, predicted. Dr. Roos also indicated to what extent some of the key states would contribute to this overall sales figure.

He expected New York State to have drug sales of some $416,000,000 at retail in 1955. Pennsylvania will do $184,000,000, while Illinois and Michigan will do $230,000,000 and $187,000,000 worth of business, respectively. California, the speaker said, is expected to have drug sales at retail in the neighborhood of $317,000,000, with New Jersey accounting for $111,000,000 and Massachusetts running to $85,000,000. Texas was seen doing $180,000,000 worth of business and the Maryland-District of Columbia area was expected to run up a total of $88,000,000.

Another economist, Dr. Raymond H. Ewell, director for program analysis of the National Science Foundation, traced the role of research in economic growth. The United States, he pointed out, has the highest growth rate of any industrialized country. It spends the largest amount of money for research and development. Of all fields, he added, the drug industry puts the largest percentage of its sales into research.

Who Spends Research Funds

He went on to note that the federal government is the major source of research funds, with industry ranking next and state governments third. Industry, however, spends about two-thirds of the total funds available, he said. The federal government is the next biggest spender. In third place are the universities, the speaker noted, adding that university research is many times greater than funds contributed by this source.

Yearly spending on research and development, Dr. Ewell indicated, is in the $4,000,000,000 class in this country. About 1 percent of the nation's gross national product in 1952 went into research and development, he said. Today's spending on research in one year, he continued, is more than the United States spent throughout its history to 1940. From 1776 to 1949, he stated, the United States spent an estimated $19,000,000,000 on research and development. From 1940 through 1954, he added, the nation spent some $17,000,000,000.

Dr. Ewell was of the opinion that the country will begin to feel the economic effects of this tremendous research spending in another ten or fifteen years. The return on yearly research and development expenditures, the speaker calculated, is in the neighborhood of forty to eighty to one. That is, the ratio of return to yearly cost.

Research Influence on Productivity

If there had been no research for the past twenty-five years, he maintained, there would have been a loss of some $400,000,000,000 in the nation's produc-

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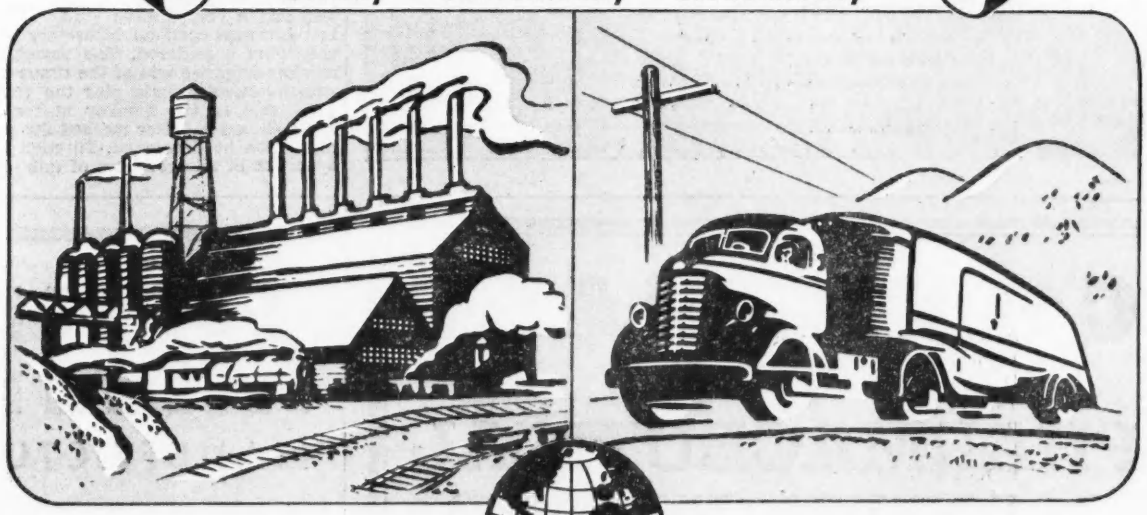

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tivity. Using the outside figure, he said, this would amount to some $800,000,000,000.

Summing up his points, Dr. Ewell contended:—

- Research and development is highly creative, serving as the source of new products, industries and jobs.
- Research and development is the most important single factor in the economic growth of this nation.
- US is doing the best research job in the world, but there is considerable room for improvement.
- Displacement of workers because of new technological developments is more than offset by the new jobs created.
- Research and development has a small stimulating effect on consumption.

Some behind-the-scenes developments on the Salk polio vaccine were highlighted in the report of ADMA's biological section. The report was prepared by Dr. Fred D. Stimpert, of Parke, Davis & Co., Detroit, Mich., chairman of the section. However, because of the great excitement attending the publication of the Francis report, Dr. Stimpert was unable to be present at the meeting in person, and his statement was entered into the record in his absence.

Committee on Polio Vaccine

Dr. Stimpert reported that ADMA's new committee on poliomyelitis vaccine held several interim meetings during the past year, some with the National Institutes of Health to work out a number of problems in anticipation of this product being licensed following the report of the National Foundation of Infantile Paralysis' 1954 field trials.

"In particular," it was noted, "problems of potency testing, preservative, safety testing, and others caused considerable concern since production was going ahead for intended use this year. Several proposed modifications of the monkey potency test and a comparative study of such a test in more common laboratory animals are being considered. The variability in monkey response and of the tissue culture neutralization technic plus the relatively great cost of the monkey makes it imperative that a better method for potency estimation be developed. Through the cooperation of all producers of this product, a reference serum has been established and is to be used with each test."

Reviewing the year's activities of some of the section's units, Dr. Stimpert reported that a special committee has been looking over the matter of labeling of gamma globulin. "They met with representatives of the NIH," he said, "and the name 'Immune Globulin, Human' proposed was considered as the most desirable. Since manufacturing licenses have not been issued under this title and the NIH cannot revoke and reissue a license without a request from the licensee, it will be necessary that each manufacturer make this request individually. All manufacturers, including two state health departments, have been apprcached, and all the ADMA and state laboratories are willing to reques: the change. One manufacturer not in the ADMA has been contacted and will give a reply soon. This committee will continue until the problem is settled."

Work of Veterinary Group

Among the key activities touched on in this report was the work of the committee on veterinary biologicals, which has been keeping track of the organizational changes of the Agricultural Research Service and the numerous problems arising through the Animal Inspection Quarantine Branch control program. The biological section, Dr. Stimpert said, has gone on record as favoring the establishment of a control laboratory under the AIQB.

"The purpose," he explained, "is to provide laboratory facilities for the control agency whose responsibilities cover the biological products used in the field of animal health. It is the belief of the section that the control agency can do a more effective job in evaluating and controlling biologicals in this field if laboratory facilities are available to them. This proposal is in line with the views expressed by the 'special committee' of the executive committee in their brief filed with the under Secretary of Agriculture on December 4, 1953.

"Representatives of the AIQB have informed us that $350,000 has been requested in their budget for 1956 to cover the establishment of such a laboratory. It is now doubtful that this amount will be authorized. Apparently some outside support, perhaps industry, would be helpful in exerting some influence toward the

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budget for a control laboratory. It is agreed that at the level of the laboratory in both industry and AIQB that very little could be accomplished. It was felt wise to refer this question to the executive committee for their guidance or action since it deals with the basic policy in our relationship to control agencies and would be in a more favorable position to organize the aid required. At the same time, the interests of industry must be safeguarded against overcontrol and testing.

If Laboratory Is Not Set Up

"In the event the laboratory is not established," Dr. Stimpert continued, "a new disposition of control effort will be attempted. This plan does not necessarily include contract testing as had been considered at one time, but does intensify inspection procedures. The idea is to train inspectors who will institute closer inspection of records, sampling, production and testing. The committee will endeavor to keep advised on this matter as it will have considerable bearing on future distribution of products. Inasmuch as it is the policy of the AIQB not to divulge test procedures proposed by a licensee in the application, it was suggested that such procedures might be included in the minimum requirements similar to the practice of the NIH.

"The representative of AIQB expressed appreciation for the work of the committee and the section as a whole which has been done toward the proposed minimum requirements for veterinary products. On brief review they appear quite satisfactory and a list of licensees and products for each has been prepared. A total of 985 products are listed. The committee offered their services on further revision so that the issuance of minimum requirements might be made as soon as possible. A change in the regulations in the labeling requirements in relation to the term 'viable' is under consideration by the agency either by deleting the term itself or specifying certain product exceptions."

Medical Section Report

Reporting on the work of the medical section, the chairman, Dr. Elmer L. Severinghaus of Hoffmann-La Roche, Inc., Nutley, N. J., indicated that the group's efforts to find methods for animal tests which will predict damage by chemicals to the blood forming organs, though incomplete, are, nevertheless, encouraging.

"A more recent attempt to clarify the methods for determining skin reactions to drugs and the development of sensitization," Dr. Severinghaus continued, "is maturing more rapidly. This bids fair to be helpful to industry, regulatory agencies, and, of course, to the public interest in better and safer therapy.

"A major problem we all face," he said, "is finding clinical investigators in adequate number who have adequate training and adequate facilities for the task we wish to interest them in. Of course, we are not alone in our concern about this group, but many of us have been recruited from the ranks of clinical investigators and know these problems at first hand. All of us depend on our academic and professional colleagues of this group for progress in our main task of investigating new drugs in therapy. Furthermore, we believe we have both the responsibility and an opportunity to aid the development of more trained investigators and better facilities for clinical research.

The report of the pharmaceutical contact committee, presented by its chairman, Dr. Frank O. Taylor of Parke, Davis & Co., was largely given over to an account of

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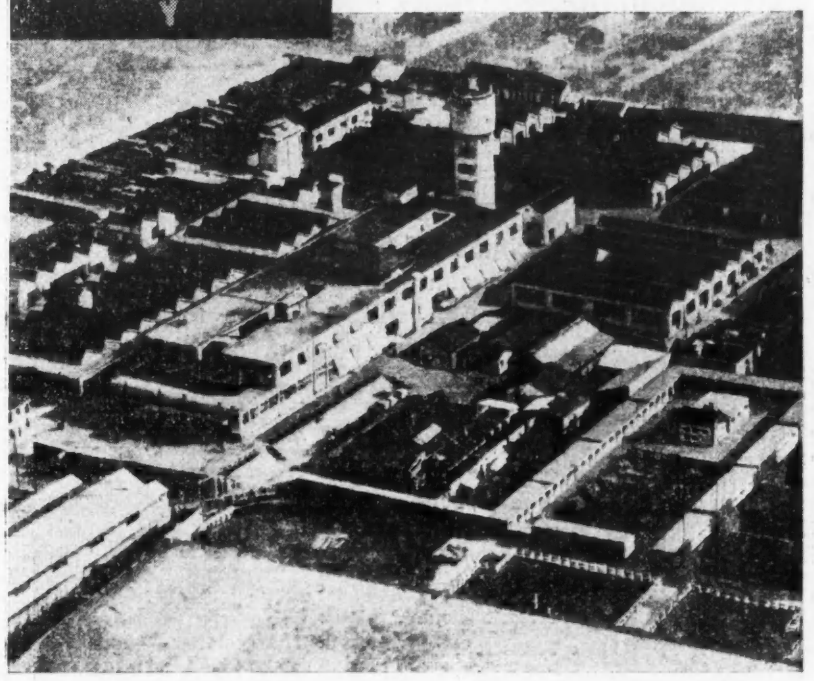

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last November's two-day meeting of the Combined Contact Committee of the ADMA and APMA.

Research and Development Section

Detailing the activities of the research and development section, its chairman, Dr. Maurice L. Moore of J. T. Baker Chemical Company, Phillipsburg, N. J., pointed to the great expansion of research and development within the pharmaceutical industry. "There has also been an increased realization by the scientific and technical people in our laboratories," he said, "of the importance of good management and administrative operations in the organization, planning, direction and coordination of research programs, personnel and facilities." This, he stated, has led the ADMA section in this field to act as a forum for providing association members with such data both during the annual meetings and by sponsoring a course on human relations as a special project.

Describing the activities of the production and engineering section, chairman F. J. Messmann of Wm. S. Merrell Company, Cincinnati, Ohio, pointed out that the unit's mission is to help management men to do a better job for member companies. "As a section," he explained, "we are concerned about ways to help these men do their jobs more effectively.

"Today many of our companies are faced not with the problems of producing at any price, but with a different set of problems which go along with relatively stable sales and declining profits. Operating efficiency has assumed a considerably more important position. There are major areas where your men feel that this section can be of assistance to them. They feel the need for help in improving their performance as managers and in improving the operating technics employed in your plants.

Men Who Make Up Section

"Many of the men in the production and engineering section were originally promoted to the ranks of management because of their proficiency in engineering or science. They recognize that a technical education, while ideal training for many of the responsibilities of management, is not necessarily the best training for handling the human problems of management.

"The increasing size and complexity of many of our organizations and the pressing need for greater efficiency have served to emphasize the importance of skill in organizing human resources as well as the more familiar physical facilities. These men know from their own experience that this skill is not automatically acquired with a promotion to management. To help these men develop themselves as managers, this section is endeavoring to bring to our members the knowledge and information they need which may not be readily available."

The association passed a resolution commending the work of Harry J. Anslinger, Commissioner of Narcotics, on the occasion of his twenty-fifth anniversary as head of the Bureau of Narcotics.

Golf Tournament Prize Winners

Top prize in ADMA's golf tournament—the president's trophy—went to J. C. Leppart of E. R. Squibb & Sons, division of Olin Mathieson Chemical Corporation, New York. Daniel C. Searle of G. D. Searle & Co., Chicago, was qualifying low gross winner. Tournament low gross prize went to George F. Smith of Johnson & Johnson, New Brunswick, N. J. Mr. Leppart won the tournament low net prize. Following are the prize winners by flights:—

First flight—Low gross, John G. Searle of G. D. Searle & Co.; first low net, H. P. Sarkison of Merck & Co., Rahway, N. J., and second low net, Edmund R. Beckwith, jr., Warner-Chilcott Laboratories, division of Warner-Hudnut, Inc., New York.

Second flight—Low gross, Dr. J. H. Fitzgerald Dunning of Hynson, Westcott & Dunning, Inc., Baltimore, Md.; first low net, Kenneth Perry of Johnson & Johnson, and second low net, Leslie D. Harrop of Upjohn Company, Kalamazoo, Mich.

Third flight—Low gross, G. J. Williams of Dow Chemical Company, Midland, Mich.; first low net, Henry Gadsden of Merck & Co., and second low net, Robert J. Strasenburgh of R. J. Strasenburgh Company, Rochester, N. Y.

Fourth flight—Low gross, Paul E. Weber of Chas. Pfizer & Co., Brooklyn, N. Y.; first low net, Samuel Gilpin of Smith, Kline & French Laboratories, Philadelphia, and second low net, Henry S. McNeil of McNeil Laboratories, Inc., Philadelphia.

Fifth flight—Low gross, Dr. Frederick F. Yonkman of Ciba Pharmaceutical Products, Inc., Summit, N. J.; first low net, Victor H. Knoop of Mallinckrodt Chemical

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Works, St. Louis, Mo., and second low net, Richard A. Anderson of Bristol Laboratories, Inc., New York.

Sixth flight—Low gross, Harry O. Stark of American Cyanamid Company's fine chemicals division, New York; first low net, William J. Haines of Armour Laboratories, Chicago, and second low net, A. J. W. LeBien of Eli Lilly & Co., Indianapolis, Ind.

Seventh flight — Low gross, G. H. Schneller of Cyanamid's fine chemicals division; first low net, J. B. Fullerton of Upjohn Company, and second low net, Carroll D. Smith, jr., of Carroll Dunham Smith Pharmacal Company, New Brunswick, N. J.

Eighth flight—Low gross, Mrs. Stuart V. Smith of Wyeth Laboratories, division of American Home Products Corporation, Philadelphia; first low net, Mrs. P. F. Ziegler of Bauer & Black, division of the Kendall Company, Chicago, and second low net, Mrs. Daniel C. Searle of G. D. Searle & Co.

D. B. Dennis of Owens-Illinois Glass Company, Toledo, Ohio, made the longest drive. F. M. Hadley of Eli Lilly & Co. came closest to the pin. George R. Fellows of Fritzsche Brothers, Inc., New York, had the least number of putts.

German Drug Production Reported Rising Steadily

West German pharmaceutical production has moved up steadily in the past few years, and prospects are for continued gains, the Department of Commerce reported last week.

Pharmaceutical production rose in value from 536,000,000 German marks in 1950 to 992,000,000 in 1953 and to approximately 1,050,000,000 (US $240,000,000) in 1954. At the same time, German exports of these products increased frm 91,000,000 marks in 1950 to over 219,000,000 in 1953 and to 261,000,000 (US $62,500,000) in 1954. Imports of various pharmaceutical specialties also have shown a marked increase over the same period—from a value of 27,000,000 marks in 1950 to 64,000,000 marks (US $15,000,000) in 1954.

The present development in the German pharmaceutical industry is greater participation of large and financially strong foreign companies, including American, through either branch outlets or manufacturing subsidies in Germany. As a result, German pharmaceutical manufacturers are becoming increasingly concerned over the competition provided by growing imports and newly established foreign-owned manufacturing plants.

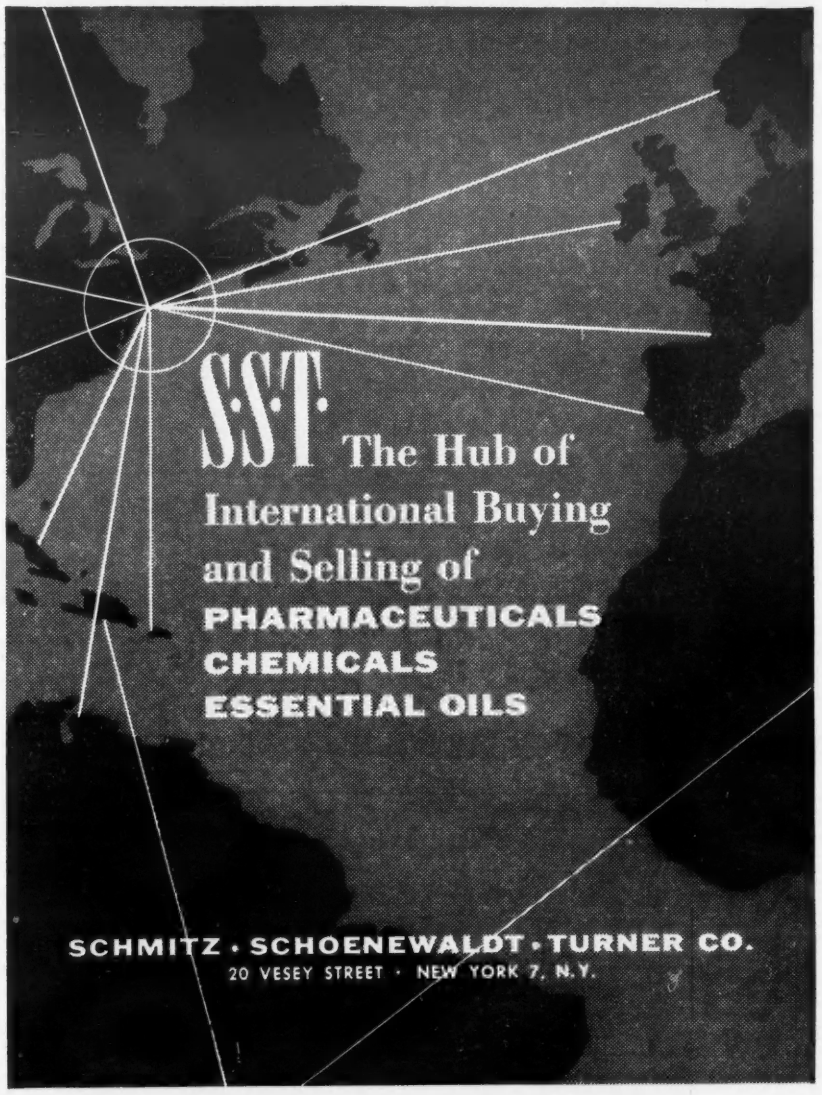
Pitman-Moore Expanding

Pitman-Moore Company, Indianapolis, Ind., has announced a $1,000,0000 expansion program at its Indianapolis pharmaceutical plant and on company property near Zionsville, Ind. Included will be a three-story addition to its Indianapolis plant and a pathology building to be constructed on ground adjacent to the virus research building fifteen miles northwest of Indianapolis.

Trade Briefs

Charles H. List, sales representative for the Vitex Laboratories Division of Nopco Chemical Company, Harrison., N. J., has been elected vice-president of the Illinois-Wisconsin Dairy Technology Society.

The Society of American Bacteriologists has elected Dr. Philip C. Eisman, director of bacteriological research at Ciba Pharmaceutical Products, Inc., Summit, N. J., vice-president of the society's New York city branch.



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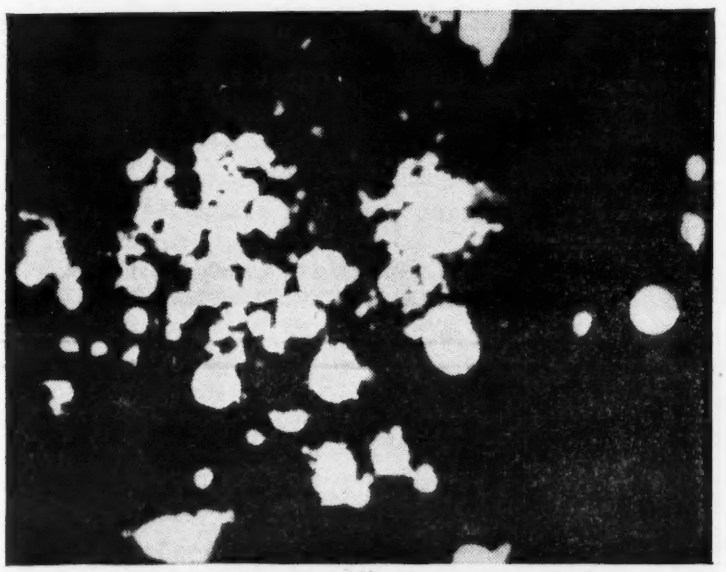

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Drugs, Fine Chemicals, Botanicals

There were no price changes reported in the drugs, and fine chemicals market last week. Business activity appears to be running at satisfactory levels. There has been some diminution in the demand for cold weather drug items but the impending approach of Summer has been reflected in the increase in demand for such chemicals as sodium benzoate, citric acid and the tartrates, all of which go into warm weather lines.

Consumer inquiry for citric acid was said to be excellent. Although consumption of citric acid has become substantial the year-round, nevertheless, its use by the food and bottling industries is formidable and serves to boost consumption to its peak during the warm weather months. Also included in this category are tartaric acid, cream of tartar and sodium benzoate. Sodium benzoate is used in considerable tonnages by both the canning and bottling industries as a preservative. Usage of this salt in the pharmaceutical end is rather small. Thus the heaviest period of consumption was anticipated during the warm weather months coming up.

The situation in tartrates remains unchanged. Prices were very firm in face of high argols costs. The possibility that prices might be advanced further continued. Argols come exclusively from abroad and prices have been subject to numerous factors, most important of which has been the bullish feeling engendered by current world tensions. The principal source of argols is Europe and shippers there have been enjoying a sellers' market for the past two years or more. What the future trend of argols prices will be remains enigmatic but it appeared certain that tartrate manufacturers' costs will not come down this year.

Crude iodine was unchanged. Imports of Japanese crude continue to undersell both domestic and Chilean crudes, forcing some price shading by these producers to remain competitive. Antibiotics were in fair demand with prices tending toward weakness in an intensely competitive market. Brazilian menthol continued to maintain strength in face of a lack of Japanese material on spot and rising synthetic costs.

Antibiotics — Demand for penicillin, streptomycin and dihydrosterptomycin, the principal bulk antibiotics, was reported fair. Pricewise, the market continued to have a tendency toward weakness, a situation ascribed to intensive competitive factors. The treatment of plant diseases appears to offer a tremendous potential outlet for antibiotics, one which conceivably could foreshadow current consumption in the pharmaceutical applications in future years.

Streptomycin has been established as an effective agent against several bacterial plant diseases. Before streptomycin was tried on crops, bacterial plant diseases were extremely difficult to control. Chemical control had not been fully saitsfactory by any means. Since a number of diseases of several crop plants have been shown to be effectively controlled with antibiotics, both as protectorants against and eradicants of the causal organisms, undoubtedly further vigorous research will be pushed forward in that quarter.

Atropine—Demand for this alkaloid was reportedly poor. Supplies were ample for current needs. Inquiry for atropine sulfate was more active than that for the alkaloid, although only fair, on the whole. Prices held unchanged since last reported upon.

Caffeine—Demand for caffeine was said to be easing off from its cold weather peak. There will be less call for caffeine from pharmaceutical manufacturers during the next few months since production of cold weather items containing caffeine will undergo a usual seasonal curtailment. On the other hand, it was expected that beverage manufacturers would step up their consumption of caffeine in line with the increase in sales of beverage items during the coming warm weather months. The supply picture was one of adequacy, at present. Prices were firm and competition from imports has become almost nonexistent, as far as could be learned.

Camphor—Demand for synthetic camphor was good. Seasonal factors have added to routine consumer requirements and the fact that there is very little natural camphor to be had in this market has been effective in increasing the demand for the synthetic. Natural camphor production in Formosa and Japan has fallen to a very low level due to lack of demand. Unsettled conditions in that area were expected to keep the current situation static.

Supplies of synthetic camphor were reportedly adequate to accommodate current consumer needs. Prices were firm with no changes anticipated.

Iodine—There were no changes in crude iodine. Demand continues at routine levels while supplies were adequate to meet consumer needs. Japanese crude material continues to be quoted at prices under domestic schedules. There has been some shading in prices by crude producers in order to compete with Japanese crude iodine prices.

Menthol—The spot market in Brazilian menthol has continued to maintain an added firmness in view of the fact that the heaviest period of consumption has gone by and that buying for the coming Fall and Winter will not commence for some months. It was understood that there is virtually no Japanese menthol for spot sale and the little which is available, is priced far above the customary differential between it and Brazilian menthol. The immediate outlook in Brazilian menthol is for continued firmness. Whether the market will be depressed later in the year remains to be seen and is subject to several unknown factors, most prominent of which is, whether the situation in the Far East will erupt into a "hot" war. In such an event Brazil would become the sole source of this commodity not imperiled since synthetic menthol, which is made from citronella oil, would most certainly be adversely affected.

Molasses—Unsettled market conditions were in evidence at New Orleans during the week ending April 19, 1955. The price for blackstrap at that terminal was 10½c. to 11c. (mostly 10½c.) per gallon as demand continued moderate to slow. Demand for molasses at feed mixing centers showed some improvement, while East and West coast inquiry was moderate to good. East coast prices for cane blackstrap remained steady and unchanged with Albany at 13c. per gallon. Supplies of blackstrap were adequate at all points. Hydrol, beet and citrus molasses supplies remained generally limited with unchanged prices. Cane blackstrap production in Florida was completed last week as cane grinding operations ended at Clewiston.

Pasture feed conditions were only 75 percent of normal as of April 1, 1955, according to the USDA Crop Reporting Board. Cold weather has caused a delay in pasture and forage crop growth this spring. Western pasture and range conditions are at a 20-year low and 30 percent below average for April 1. Freezing temperatures and critically dry soils have retarded green feeds in several of the western states. The board further reports that grain and concentrate feeding in the dairy industry continued at near record levels throughout most of the country.

The use of molasses in ethyl alcohol production declined slightly during February, amounting to 3,500,000 gallons. Alcohol production was down over 1,000,000 gallons from January, while stocks were 500,000 gallons higher.

Sodium Benzoate—Demand for this salt was reported to be on the rise as the approach of warm weather heralds the start of peak production levels in the canning and bottling industries. Sodium benzoate is used as a preservative in both these fields. With the consumption of soft drinks reported on the rise, use of the sodium salt in soft drink production was expected to be heavier. Supplies were reported in good shape and prices were firm. Producers reported that there should not be any difficulty in meeting consumer demands.

Tannic Acid—Demand for this compound was said to be running at routine levels. The recent price advance which was necessitated due to higher raw mate-

For Late Market Developments, See Page 4

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 23, 1954
67.18	67.18	67.36	71.91

(For Current Prices see page 9)

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rial costs, has not affected consumption to any notable extent, it was said. Supplies were adequate to accommodate current consumer needs and expected to continue in the immediate future. Price schedules were firm.

Tartrates—Demand for the tartrates was reported good with seasonal influences expected to increase consumption in coming months. Tartaric acid and cream of tartar are used in considerable volume in the manufacture of soft drinks and food items such as candies, jellies and other confections.

Supplies were adequate for consumer needs but not excessive, it was said. Available supplies of argols, the raw materials used in tartrate manufacture, are on the tight side in addition to being quite high priced. Whether tartrate price schedules will be advanced in the near future was conjectural at this time but it was felt the high cost of argols plus the sustained demand for the finished tartrates might combine to make a price hike necessary.

Vitamin A—Demand for synthetic vitamin A continues at good levels. Since the fortification of margarine is the greatest single outlet for synthetic vitamin A, demand remains fairly constant throughout the year and hence is not subject to seasonal influences to the extent it was when pharmaceutical manufacturers accounted for the bulk of the sales. The supply picture was bright for consumers and no difficulties have been encountered in meeting requirements of both margarine and pharmaceutical manufacturers.

Despite a persistent variation of raw material costs over the past several months, prices on synthetic A have retained their stability to an extent which would have been virtually impossible years ago when natural vitamin A was the more important of the two. Consumption of synthetic A by the pharmaceutical industry continued to mount as a result of the overall decline in the price of synthetic vitamin and the public's mania for multivitamin preparations. Whether synthetic A producers will eventually have to advance their schedules to cover the rising costs of raw materials remains conjectural. There have been no such indications, at any rate.

Botanicals

Trading in the botanicals market last week was at a good rate. The average botanicals buyer, however, appeared to be operating on a hand-to-mouth basis. Despite the tensions in many parts of world which have interfered with botanicals collection, domestic buyers have generally been indifferent toward warnings sounded in the trade as to the growing seriousness of shortages in many items.

In recent years, foreign shippers have been growing less meticulous in meeting quality standards. There also has been considerable reneging on contracts with shippers failing to make deliveries or making only partial deliveries in addition to an increase in delays with some shipments coming in as late as 90 days behind schedule.

Papain continues plentiful in the spot market. There was considerable variation in quality with prices spanning a wide range. Advices from Ceylon indicate that about half of the plantations formerly producing papain have quit due to the low prices being offered by buyers. As a result, it was predicted that papain would grow tighter later this year when dealers start to look for replacement stocks. It was understood that it takes three years for a papain plantation to get into production once planting has been stopped. Production from Africa is dependent upon many factors. The unrest there with the possibility of civil strife is not very comforting to buyers of African products since such conditions have never proved conducive to market stability.

Arnica Flowers—Spot supplies continued extremely scarce last week. There seemed to be little if any hope for any improvement in the near future. There have not been any recent importations of this botanical and shippers in Europe seem to be indifferent to consumer needs in this country.

One of the major reasons for the lack of availability of true, montana flowers has been the shortage of labor in collection areas. With most of the labor in Central Europe diverted either to heavy industry and agriculture, marginal labor formerly available for botanicals collection has declined considerably.

Buchu Leaves—The current tightness in supply was expected to grow worse in

coming months since stocks at origin were reportedly low and the next crop will not come in until next January. Prices were very firm at 65c. per pound.

Copaiba Balsam—The market was reported to have advanced sharply at origin. According to shipment prices for future delivery, spot market prices are lower than replacement costs. Consumer demand, however, is the real factor governing prices and to date, the extent of demand has not been sufficient to force an upward movement.

Ergot—Demand for ergot was reported fair, on the whole. Overall consumption of ergot has dropped off noticeably, according to informed sources in the trade. It was not apparent as to why consumption of this item has declined since there appears to be no replacement for ergot in its medicinal applications.

Production of some of the ergot alkaloids via a synthetic route was announced in the latter part of 1954. When and whether commercial production will start remains unknown at this time. The fact that the medical industry has long sought a synthetic method for the production of ergot in order to be free of the vagaries in price and supply of the natural material would appear to be sufficient reason for anticipating an early answer to this postulation.

Kola Nuts—Demand for kola nuts was reported running at a good rate. Closely connected to this movement was the fact that the approach of warm weather always results in a burst of activity in the soft drink industry and kola extract is, of course, in heavy demand as a flavoring material.

Orris Root — There has been little change in this item since the last report. Stocks continue to grow tighter and consumers appeared to be on the short end. The next crop will not come in until September-October. Meanwhile supplies on hand were expected to continue to shrink with prices probably mounting higher.

Saffron—The market was very tight on this item. Reports from origin indicated that government regulation of exports has served to push market quotations higher. The spot market in New York currently ranged from $35 to $40 per pound, depending upon quantity, quality and individual seller.

Wood Products Preservative Treatment Down Last Year

The volume of wood products treated with preservatives at plants throughout the country in 1954 dropped about 16 percent from 1953, the Department of Agriculture has announced.

The preliminary figures, compiled by the Forest Service in cooperation with the American Wood Preservers' Association are based on reports from 277 of the 302 known wood-treating plants and represent about 95 percent of the output of the wood preservation industry. The survey also showed that the use of creosote dropped about 18 percent in 1954, while the use of pentachlorophenol increased about 51 percent. Creosote, however, is still the most widely used wood preservative.

The total volume of wood products treated in 1954 was 244,964,122 cubic feet as compared with 292,569,158 for 1953. All types of products treated showed a drop except fence posts which increased in number from 22,286,829 to 22,462,304. The number of crossties treated dropped from 39,368,388 to 33,011,874; poles from 5,606,521 to 4,814,578; crossarms from 5,305,907 to 4,240,639; lumber from 485,878,923 board feet to 426,057,574; piling 20,822,571 linear feet to 17,466,656; switch ties from 133,096,674 board feet to 88,111,941; wood blocks from 2,125,388 square yards to 1,558,912, and other products from 4,032,083 cubic feet to 2,681,266.

The use of creosote dropped from 178,212,580 gallons in 1953 to 145,351,752 in 1954. Pentachlorophenol in solid form increased from 5,397,836 pounds to 8,134,681. Solids next high in use in 1954 were:—Chromated zinc chloride, 2,398,356 pounds; Wolman salts, 1,872,590 pounds, and celcure 1,088,948 pounds.

A final report on quantities of wood treated and wood preservatives used will be issued at a later date. A copy of the preliminary report ("Preliminary Wood Preservation Statistics 1954), may be obtained from the Forest Service, Department of Agriculture, Washington 25, D. C.

Gulf Oil Corp. Sets Up

—Continued from page 5

as a laboratory assistant at the Port Arthur, Tex., refinery. Six years later he was promoted to foreman of one of the major lubricating oil processing units there, and in 1934 he was appointed chief chemist for all three refineries the company then operated in Texas. In 1945, he was named assistant general superintendent of the company's manufacturing operations in Texas and remained in that capacity until 1950, when he was transferred to the general office in Pittsburgh.

Dr. Lewis joined Gulf in 1938 as an organic chemist in the refinery technology division at Philadelphia. In 1946 he was named a chief product engineer in the domestic marketing department and in 1954 was transferred to the petrochemical activities unit. Mr. Hurd joined Gulf Research & Development Company in 1942 and worked there in various capacities until his transfer to Gulf's general office chemical staff in 1951. Since that time he has been engaged in process engineering studies of chemical projects.

Marketing of Gulf's chemicals is handled directly through the company's Pittsburgh headquarters under the supervision of Dr. Lewis. Through its 50 percent ownership in Goodrich-Gulf Chemicals, Inc., Gulf will have a major interest in the manufacture of butadiene and synthetic rubber. Mr. Crockett also is a director on the board of Goodrich-Gulf and is responsible for most of Gulf' relations with this affiliated company. He and his staff will continue to be located in the general office in Pittsburgh.

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- 3,5-DIHYDROXYPYRIDINE
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- DIIODOHYDROXYPROPANE
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- 1,2-DIMERCAPTOPROPANE
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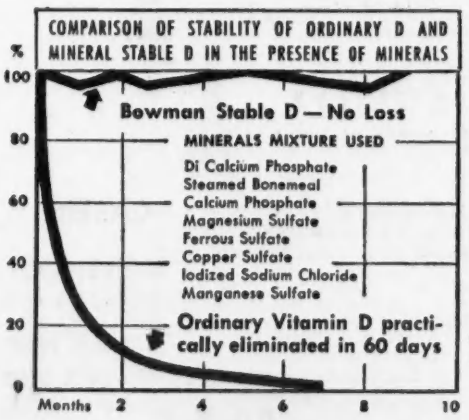

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Antibiotic Certification Dates Are Amended by the FDA

Amendments were announced to the regulations of the Food and Drug Administration relating to antibiotics last week, extending the certification dates for certain chlortetracycline products and modifying the testing and assaying requirements for bacitracin ointment.

The potency date for chloretracycline powder was extended to forty-eight months and for tetracycline powder the date was fixed at twenty-four months. The changes relative to bacitracin ointment had to do with zinc bacitracin ointment, a new product for which a certification period of twenty-four months was allowed.

The agency also amended the sections of the regulations relating to certification of penicillin products to permit the addition of vitamin substances to certain of the pencillin preparations. The certification period for the vitamin penicillin products would run from eighteen to thirty-six months, depending on the type of penicillin used and the experience of the applicant in storing the product.

Salk Vaccine Standard

—*Continued from page 3*

Paralysis and the companies in consultation with the Public Health Service. The vaccine produced conformed to these standards. The industry felt that in view of the urgency of the situation, these standards should be followed this year and the new requirements delayed until production started on next year's supply.

Problems connected with the distribution of the vaccine also were the subject of a conference April 22, called by Secretary Oveta Culp Hobby at the direction of the President. Attending were representatives of the professional groups, the drug industry and the government. The aim was to set up a voluntary system of distribution by which the available supplies will be equitably split between the different groups of purchasers—the states for the indigent, the polio foundation for its program and purchasers through usual commercial channels. Distribution on a geographical basis also was considered, since the polio season starts earlier in some sections of the country than in others.

Vaccine Produced to Date

Meanwhile, the polio foundation reported that a total of 5,029,290 cubic centimeters of Salk vaccine had been shipped to twenty-nine states, Hawaii and the District of Columbia through April 21. In all, the foundation plans to distribute 18,000,000 c.c. of Salk vaccine throughout the nation.

Five of the six producers licensed to make the vaccine are credited with the presently available output. They are Eli Lilly & Co., Indianapolis, Ind., which has turned out well over half of the vaccine to date; Parke, Davis & Co., Detroit, Mich.; Pitman-Moore Company, Indianapolis; Cutter Laboratories, Berkeley, Calif., and Wyeth Laboratories, Philadelphia.

Sharp & Dohme, a division of Merck & Co., Philadelphia, is the sixth producer licensed to make Salk vaccine. However, a company spokesman last week said that Sharp & Dohme does not expect to make any shipments for several weeks, and that none of its production is likely to become available on the commercial market before mid-summer.

Eli Lilly reported, however, that it expects to be able to provide the nation's physicians with at least 25,000,000 c.c. of Salk vaccine by July 31. The company said the 25,000,000 c.c. would be over and above its commitments to the foundation for 5,400,000 c.c. of vaccine. Lilly expects to start up commercial distribution of vaccine between May 15 and 30.

In other developments, three bills relating to the vaccine and its discoverer, Dr. Jonas E. Salk, were introduced in congress last week. In the house, Rep. Emanuel Celler of New York and Rep. Albert Rains of Alabama each sponsored legislation aimed at preventing a black market in Salk vaccine. Sen. Pat McNamara of Michigan, at the same time, introduced a bill to provide payments of $10,000 a year for life to Dr. Salk.

Abroad, there were reports from London that British experts are reluctant to accept the Salk polio vaccine because they believe that a vaccine being developed by another American will be more effective. The reference was to work being done by Dr. Herald Rea Cox, director of viral and rickettsial research at Lederle Laboratories Division, American Cyanamid Company, Pearl River, N. Y.

Dr. Cox has been working on the development of a vaccine from live virus, while the Salk material is based on killed or "inactivated" virus. Dr. Cox, who has been working on his project for more than five years, said that the Lederle vaccine was only at the research stage. However, he intimated that based on what is already known about the material, his vaccine will probably be "longer lasting and have a higher degree of immunity than other types."

GAF Dyestuff Unit Posts Filled by Research Chief

Dr. R. M. Stevinson, director of research for the dyestuff and chemical division of General Aniline & Film Corporation, New York, has announced several appointments to his executive staff. Dr. Stevinson was appointed to the directorate last month as a successor to Dr. J. W. Lang, who was named manufacturing manager of the division (OPD 3/21/55).

The appointments made known by Dr. Stevinson are:—New fields research manager, Dr. J. M. Wilkinson, who will also serve as manager of the company's Easton, Pa., laboratory; process research and development, Dr. F. J. Gajewski, manager at the Linden, N. J., plant, and Dr. C. F. Jelinek, manager at the Rensselaer, N. Y., plant, and process engineering manager, Dr. D. B. Andrews. At the same time, Dr. Stevinson announced that C. F. Montrose would serve as supervisor of economic evaluation studies and Dr. H. T. Thompson will continue as assistant to the director.

Fish Oil Exports of US Reached Peak Last Year

United States exports of fish oils reached a new record volume in 1954 of 70,817 short tons, an increase of 31 percent from the previous high in 1953 of 54,233 short tons, according to the Foreign Agricultural Service.

Most of the oil, as in previous years, went to western Europe but a notable increase occurred in exports to Canada. Exports to the Netherlands were nearly five times the 1953 level, but the bulk of this oil probably was trans-shipped to western Germany. Exports of United States fish oils to Switzerland and the United Kingdom were up from the year before.

Air Pollution Offense

—*Continued from page 7*

an estimated $40,000,000 per year can be charged to pollution abatement.

Deploring this "tremendous cost to our economy," he cited three specific goals which must be achieved in an effort to reduce air pollution:—More extensive utilization of technics and technology now available; research into those areas about which there is still uncertainty, and a forceful program of public information.

In defining the make-up of his proposed national-level committee, Mr. Foster suggested representatives from those industries and associations principally concerned with air pollution abatement, selected state and local air pollution officials, and federal representation which would include the same membership that now sits on the federal Ad Hoc Committee on Community Air Pollution. This includes representatives from the Interior, Commerce, Defense, Agriculture and Health, Education and Welfare departments, plus representatives of the Atomic Energy Commission and the National Science Foundation. The chemical industry, he said, stands ready to discuss the national-level committee proposal and to take whatever steps may be necessary to help bring it to practical reality.

Talk By Hitchcock

"The systematic (and automatic) collection of accurate measurements of many significant pollutants should greatly expediate a clear definition of our smog problem," Dr. Lauren B. Hitchcock, president of the Air Pollution Foundation, told the symposium. Dr. Hitchcock emphasized that "automation" is one important prerequisite to the diagnosis of the atmosphere in the Los Angeles Basin, which adds up now to the doubly-unpleasant words, "smog" and "air contamination."

Basing his conclusions on the four-month 1954 aerometric survey, conducted for the County of Los Angeles, Dr. Hitchcock recommended that automatic recording equipment be installed to provide more complete monitoring of the important variables—the inconstancies—those fickle qualities of our atmosphere which combine to make smog.

On the basis of last year's survey, he further proposed that a minimum of fourteen monitoring stations be established this year and that information from each station be telemetered to a central office, then automatically transferred to punch cards, in the interest of efficiency and economy.

Veterinary Drugs Rule Overhaul in Mill: USDA

—Continued from page 5

criticized the government's failure to maintain full parity while the other predicted "rough" going for livestock growers as a result of acreage shifts growing out of the controls necessary to a government supported parity system.

Carl H. Wilken, a member of the Raw Materials National Council, warned that "until farm prices are restored to parity, our economy will be on the brink of a cliff, ready to go over." He was of the further opinion that there can be "no sound economic expansion until the price of farm products is brought back to parity."

Oversupply of Livestock Seen

Walter B. Garver, manager of the agricultural department of the U. S. Chamber of Commerce, predicted "challenging adjustments" for livestock growers during the next two to five years, due to an oversupply of livestock resulting from government policies. He explained that government curbs which limit the amount of land used for basic crops cause farmers to shift acreage to livestock production.

Mr. Wilken and Mr. Garver also split on the economic effect of farm surpluses. Coupled with the possible wheat price controls, Mr. Garver said that surpluses of feed crops, such as wheat and corn, could result in an oversupply of livestock. Mr. Wilken, on the other hand, said that "present farm surpluses which protect our livestock industry, are the best investment we have for future expansion."

Drug manufacturers should "embark upon a direct approach to the original source of information" to find material of value "in developing new products or in improving old or discarding outmoded or obsolete ones," Dr. John H. Collins, veterinary medical director of the Food and Drug Administration, declared.

Agricultural Experiment Stations

In listing sources of information, he pointed out that each state and US possession has an agricultural experimental station connected with schools. He said most of them employ scientists "constantly searching for new knowledge about the nutritional, bacterial, viral, protozoan, parasitic, and environmental causes of disease in all species of livestock and poultry and their prevention, control and treatment." He added that there are eighteen accredited veterinary medicine colleges training students and seeking new methods for diagnosing, preventing, and treating animal and poultry disease.

"The Agricultral Research Service of the Department of Agriculture, with its Branches of Animal Disease and Parasite Research, Dairy Husbandry Research, Entomology Research, and Animal and Poultry Husbandry is also contributing a wealth of new material," Dr. Collins said. He also cited the National Institutes of Health as a valuable source for material. He said that the institutes, along with the Public Health Service, conduct disease experiments with such small laboratory animals as rats, mice, and monkeys.

Dr. Collins said few people are aware of the research activities of the Fish and Wildlife Service of the Interior department. He pointed out that that agency deals with disease prevention in searching for more effective methods of fish and animal conversation. He especially praised the National Research Council for correlating "much of this vast information" and getting "a consensus of experts in various scientific fields by appointing committees to prepare reports for publication.

Sodium Propionate Development

As an example of progress in the field of drugs coming from all this research, Dr. Collins pointed to the work which led to the use of sodium propionate in the treatment of acetonemia of cattle to research which debunked the use of acids in treatment of coccidiosis in chickens.

The institute re-elected True, Davis, jr., of the Anchor Serum Company, South St. Joseph, Mo., as its president. Dr. D. H. LeGear of the Dr. L. D. LeGear Medicine Company, St. Louis, Mo., was re-elected first vice-president, and Dr. Mark Welsh of Lederle Laboratories Division of American Cyanamid Company, Pearl River, N. Y., was re-elected second vice-president. Dr. Arthur Goldhaft of Vineland Poultry Laboratories, Vineland, N. J., was elected treasurer, succeeding Thomas B. Huff of American Serum Company, Sioux City, Iowa.

New directors of the institute are Dr. Huff, Frank N. Getman of Dr. Hess & Clark, Ashland, Ohio; George Klinger of *Drug Topics*, New York city, Fred Moore of Hilltop Laboratories, Minneapolis, Minn., John Torey of E. I. duPont de Nemours & Co., Wilmington, Del., and Vernon Vine of *Farm Journal*, Philadelphia.

Trade Briefs

Helena Rubinstein, Ltd. (Canada), has announced the appointment of Daniel W. McManus as sales director.

Jack Rimmer, former production chemist and maintenance engineer for Winthrop-Stearns, Inc., Rensselaer, N. Y., has joined B. T. Babbitt, Inc., Albany, N. Y., as chief chemist.

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18 bgs, Parker Trading Co, Valparaiso
113 bgs, C Gulden, London
MYROBALANS—1,456 bgs, Barkey Importing Co, Bombay
MYRRH GUM—4 bgs, Aden
NAPHTHALENE—556 bgs, Gallard Schlesinger, Hamburg
826 bgs, Koppers Co, London
1,000 bgs, American Tebu Corp, Rotterdam
1,334 bgs, Gallard Schlesinger, Rotterdam
500 bgs, Hudson Shipping Co, Antwerp
1,000 bgs, Gallard Schlesinger, Havre
1,963 bgs, Irving Trust Co, Antwerp
572 bgs, Gallard Schlesinger, Antwerp
1,466 bgs, Antwerp
1,767 bgs, Avonmouth
NAPHTHOL—4 dms, Marine Midland Trust Co, Rotterdam
b-NAPHTHOL—330 bgs, General Aniline & Film Corp, Rotterdam
NICKEL ACETATE—30 bgs, Aceto Chemical Co, Bremen
SULFATE—40 bgs, Republic Chemical Corp, London
15 cks, E Gumpert Corp, Hamburg
70 bbls, Brandeis Goldschmidt & Co, Kristiansand
100 bgs, Antwerp
m-NITRO-p-TOLUIDINE—8 dms, Glasgow
NUTMEG—253 bgs, Norda Essential Oil & Chemical Co, St. George
275 bgs, Karl H Landes & E Balint, St George
100 bgs, John Holt & Co, St George
200 bgs, George Leuders & Co, Colombo
20 bgs, Kellys America Ltd, Rotterdam
40 bgs, A G Dunn, Rotterdam
25 bgs, Murbas Trading Co, Kingston
OLIBANUM GUM—67 bgs, Chase National Bank, Massawa
30 bgs, Aden
OLIVE OIL—50 dms, Guaranty Trust Co, Seville
100 dms, Public National Bank, Algiers
76 dms, Bank of America, Algiers
28 dms, Asaro Bros, Palermo
10 dms, Musco & Co, Palermo
60 dms, Uddo & Taormina Co, Palermo
50 dms, Bank of Manhattan Co, Tarragona
102 dms, J I Sclafani, Piraeus
100 dms, Old Monk Olive Oil Co, Marseille
25 dms, First National Boston, Seville
25 dms, Second National Boston, Algiers
80 dms, Manufacturers Trust Co, Seville
103 dms, First National Boston, Tarragona
225 dms, Algiers
215 dms, Tarragona
10 dms, Genoa
OREGANO—95 bgs, Levy & Levis Co, Tampico
PALM OIL—451 tons, Balfour Guthrie, Matadi
PAPAIN—30 cs, East Asiatic Co, Mombasa
400 bgs, J Weinstein, Alicante
250 bgs, Gallagher & Ascher, Alicante
355 bgs, Manufacturers Trust Co, Alicante
636 bgs, Alicante
PARAFFIN WAX—18 bgs, Rotterdam
PARIS GREEN—441 dms, Chemical Service Corp, Piraeus
PATCHOULI OIL—21 cs, Blyth Greene & Jourdain & Co, Penang
8 dms, Roure-Dupont Inc, Penang
2 dms, Felton Chemical Co, Penang
PEARL ESSENCE—130 cs, Argenta Products Co, Rotterdam
PEATMOSS—3,030 bls, Premier Peatmoss Corp, Bremen
1,000 bls, Lewis Intern Corp, Bremen
500 bls, W H Byrnes, Bremen
500 bls, Gelleo Inc, Bremen
1,050 bls, New Amsterdam Importing Co, Bremen
1,100 bls, Trans Sphere Trading Co, Bremen
1,000 bls, E J Lang, Bremen
800 bls, C Gastmeyer, Rotterdam
PECTIN—64 kgs, Jafbro Corp, Copenhagen
PEPPER, BLACK—160 bgs, A G Dunn, Bombay
160 bgs, A C Israel, Bombay
160 bgs, M Golodetz, Alleppey
80 bgs, M Golodetz, Cochin
80 bgs, Borneo Sumatra Trading Co, Oosthaven
640 bgs, Volkart Bros, Cochin
160 bgs, A C Israel, Cochin
160 bgs, Dalamal & Sons, Cochin
240 bgs, Joensson & Cross, Alleppey
80 bgs, Internatio Rotterdam, Alleppey
80 bgs, A G Dunn, Alleppey
160 bgs, A C Israel, Alleppey
160 bgs, J Berlage, Alleppey
70 bgs, Borneo Sumatra Trading Co, Singapore
70 bgs, A G Dunn, Singapore
240 bgs, Alleppey
880 bgs, Cochin
RED—174 bgs, R E Valensi, Lagos
186 bgs, Chase National Bank, Lagos
WHITE—70 bgs, Borneo Sumatra Trading Co, Singapore
32 bgs, Mincing Trading Corp, Pangkal Pinang
344 bgs, Internatio Rotterdam, Pangkal Pinang
70 bgs, Volkart Bros, Singapore
70 bgs, A G Dunn, Singapore
PERU BALSAM—3 dms, Dodge & Olcott, Cutuco
2 dms, Merchants Export-Import Co, Cristobal
4 dms, Citrus & Allied Essential Oils Co, Cristobal
PETROLEUM, CRUDE—115,118 bbls, California Oil Co, Sidon
160,000 bbls, Socony Vacuum Oil Co, Puerto La Cruz
193,857 bbls, Esso Standard Oil Co, Puerto La Cruz
PIMENTO—50 bgs, Mincing Trading Corp, London
240 bgs, Gillespie & Co, Kingston
175 bgs, I R Boody Co, Beirut
LEAF OIL—2 dms, W J Bush & Co, Kingston
1 dm, Felton Chemical Co, Kingston
POLLACKLIVER OIL—60 dms, Arista Oil Products Co, Yokohama
144 dms, J D Smith Interocean, Yokohama
50 dms, Wilbur Ellis Co, Yokohama
209 dms, Consumers Import Co, Yokohama
POLYISOBUTYLENE—64 dms, Nova Chemical Corp, Rotterdam
POPPY SEED—165 bgs, R J Spitz, Hamburg
300 bgs, Rotterdam
POTASSIUM SILICATE—907 bgs, Sylvania Eelectric Products, Rotterdam
POTATO STARCH—6,000 bgs, Stein Hall & Co, Copenhagen
10 bgs, Guaranty Trust Co, Rotterdam
PSYLLIUM SEED—41 bgs, S B Penick & Co, Marseille
81 bgs, Marseille
HUSKS—200 bgs, S B Penick & Co, Bombay
PYRETHRUM EXTRACT—40 dms, McLaughlin Gormley King Co, Mombasa
FLOWERS—379 bls, John Powell & Co, Dares Salaam
PYRIDINE ALDEHYDE—1 bbl, J D Irwin Inc, Hamburg
QUASSIA CHIPS—190 bgs, S B Penick & Co, Kingston
QUEBRACHO EXTRACT—4,151 bgs, International Products Corp, Callao
2,064 bgs, Barkey Importing Co, Callao
POWDER—150 bgs, American Dyewood Co, Glasgow
RADIUM ELEMENT—2 cs, Radium Chemical Co, Antwerp
RAPESEED—200 bgs, Catz American Co, Rotterdam
800 bgs, Hartz Mountain Products, Rotterdam
RAUWOLFIAVOMITORIA ROOT—185 bgs, Matadi
RICE STARCH—100 bgs, Stein Hall & Co, Alexandria
ROSEMARY LEAVES—17 bls, Wm E Martin, Marseille
RUTIN—3 dms, Commercial Banking Co, Sydney, Melbourne
SACCHARIN—2 bbls, Leviant & Co, Rotterdam
SAFFRON—1 cs, Frank Tea & Spice Co, Rotterdam
2 cs, Meer Corp, Rotterdam
19 bgs, Vera Cruz
SAGO FLOUR—544 bgs, Chartered Bank of India, Singapore
SANDALWOOD—100 bgs, George Lueders & Co, Bombay
OIL—17 cs, Ungerer & Co, Cochin
17 cs, Cochin
9 cs, Lo Curto & Funk, Cochin
SAVORY LEAVES—17 bls, Wm E Martin, Marseille
SCARLET BASE—4 dms, General Aniline & Film Corp, Rotterdam
SEAWEED MEAL—224 bgs, F H Fromm Co, Dublin
SEEDLAC—500 bgs, Doran & Schmiedel, Bangkok
450 bgs, Gillespie Rogers Pyatt, Bangkok
2,750 bgs, East Asiatic Co, Bangkok
250 bgs, Mac Lac Co, Bangkok
750 bgs, Colony Import & Export Corp, Bangkok
500 bgs, Borneo Sumatra Trading Co, Bangkok
1,000 bgs, Mantrose Corp, Bangkok
2,000 bgs, Bangkok
250 bgs, J H Schroder, Bangkok
250 bgs, Tradesman Bank, Bangkok
230 bgs, Balfour Guthrie, Bangkok
SENNA LEAVES—100 bls, Sterling Drug Co, Tuticorin
50 bls, Meer Corp, Tuticorin
SERPENTINA ROOT—55 bkts, Bertram Kay, Vera Cruz
52 bgs, Bertram Kay, Vera Cruz
98 bgs, Squibb Mathieson International Corp, Vera Cruz
SESAME SEED—2,630 bgs, Independent Halvah & Candies, Cutuco
100 bgs, Corinto
MULLED—1,360 bgs, Chase National Bank, Cristobal
100 bgs, Sokol & Co, Cristobal
OIL—15 cs, American Trust Co, Chilung
SHARKLIVER OIL—50 dms, Consumers Import Co, Yokohama
50 dms, Interocean Chemical & Minerals Corp, Yokohama
SHELLAC—49 bbls, F H Paul & Stein Bros, Rotterdam
40 bgs, F H Paul & Stein Bros, Rotterdam
25 bgs, Dings & Schuster, Bremen
WAX—100 bgs, F H Paul & Stein Bros, Rotterdam
SILICEOUS EARTH—120 bgs, J V Bibbo Co, Avonmouth
SOAPBARK — 317 bls, Duncan Fox & Co, San Antonio
174 bls, S B Penick & Co, San Antonio
82 bls, S B Penick & Co, Valparaiso
SODIUM AMINO SALICYLATE—6 cs, Consolidated Midland Corp, El Salvador
CYANIDE—440 dms, Philipp Bros Chemicals, Hamburg
737 dms, Chemical Manufacturing Co, Middlesbrough
PERBORATE—50 dms, Independent Corp, Hamburg
SPERM OIL—272 tons, Pisco
STARCH—1,000 bgs, Alltransport Inc, Rotterdam
330 bgs, Morningstar Nicol, Rotterdam
65 bgs, Rotterdam
STYRAX GUM—13 cs, Dodge & Olcott, Izmir
SULFADIAZINE—13 cs, Conray Products Co, Yokohama
SULFUR—5 dms, M W Hardy & Co, Hamburg
SUMAC EXTRACT—50 cks, American Dyewood Co, Glasgow
TALC—100 bgs, Hammill & Gillespie, Bombay
32,534 bgs, Charles Mathieu, Genoa
TAMARINDS—32 bbls, S B Penick & Co, St Lucia
20 kgs, S B Penick & Co, St Lucia
TAPIOCA FLOUR—1,000 bgs, Manhattan Paste & Glue Co, Bangkok
1,700 bgs, American Key Products, Bangkok
1,500 bgs, Borneo Sumatra Trading Co, Bangkok
1,500 bgs, Geismar & Co, Bangkok
2,000 bgs, Internatio Rotterdam, Bangkok
TARTAR—1,863 bgs, Tartaric Raw Materials, Marseille
TARTARIC ACID—200 bgs, Nylos Trading Co, Genoa
80 dms, Frank Samuel & Co, Marseille
THYME LEAVES—75 bgs, Wm E Martin, Marseille
TOLU BALSAM—10 cs, Lo Curto & Funk, London
TUNALIVER OIL—5 dms, Consumers Import Co, Yokohama
TURMERIC—80 bgs, Volkart Bros, Alleppey
240 bgs, Brown Bros, Alleppey
120 bgs, A G Dunn, Cochin
160 bgs, Cochin
150 bgs, Alleppey
UREA—8,000 bgs, Chemical Manufacturing Co, Middlesbrough
VALONIA CUPS—1,642 bgs, Barkey Importing Co, Izmir
7,011 bgs, First National Boston, Izmir
VANILLA BEANS—146 cs, First National Boston, Antalaha
46 cs, J D Walsh Co, Antalaha
47 cs, P H Petry, Antalaha
48 cs, Madagascar Agencies, Antalaha
38 cs, Gillespie & Co, Antalaha
25 cs, Zink & Trieste, Tamatave
24 cs, Marseille
WHITING—1,200 bgs, N H Weitzner, Antwerp
WOOL GREASE—5 dms, Eelsingh & Lugtigheid, Rotterdam
30 dms, Phoenix Oil Products Corp, Dublin
5 dms, Croda Inc, Hull
50 dms, Hudson Shipping Co, Antwerp
100 dms, N I Malmstrom, Bremen
WAX—6 dms, Croda Inc, Middlesbrough
ZINC CYANIDE—66 dms, D Hauser, Genoa
VALERATE—8 dms, P H Petry, Middlesbrough

Baltimore

ARSENIC, CRUDE—24 bbls, American Smelting & Refining Co, Tampico
LITHARGE—100 dms, Tampico
PEATMOSS—1,300 bls, F H Shallus & Co, Bremen
1,600 bls, Bruco Peatmoss Corp, Bremen
TAPIOCA FLOUR—500 bgs, Harry F R Dolan Jr, Bangkok

Boston

SEEDLAC—250 bgs, Borneo Sumatra Trading Co, Bangkok
250 bgs, Tradesman Bank, Bangkok
SPERM OIL—272 dms, Merchants Bank of Boston, Pisco
TALC—200 bgs, Charles Mathieu, Genoa

Los Angeles

COPRA, BULK—286 long tons, Lu Do and Lu Ym Corp, Cebu
200 long tons, Balfour Guthrie & Co, Manila
500 long tons, American Trust Co, Legaspi
500 long tons, Vegetable Oil Products Co, Tabaco
1,500 long tons, American Trust Co, Siain
500 long tons, Paul X Smith Corp, San Jose Panganiban
CAKE—1,000 bgs, Balfour Guthrie & Co, Cebu
PETROLEUM, CRUDE—16,501 tons, Mohawk Petroleum Corp, Aruba
100 bgs, Hismoco American Co, Yokohama
LOCUST BEAN GUM—275 bgs, Genoa
PEPPER, RED—50 bgs, M S Cowen Co, Kobe

Norfolk

DAMMAR GUM—50 cs, Bangkok
PEATMOSS—3,200 bls, J M Trading Corp, Bremen
POTATO STARCH—600 bgs, Rotterdam

Philadelphia

ASBESTOS FIBER—400 bgs, Durban
BALL CLAY—2,109 tons, Swansea
CHESTNUT EXTRACT—501 bgs, Marseille
CODLIVER OIL—150 dms, Dyson Shipping Co, Rotterdam
97 dms, Chemical Bank, Lisbon
EARTH PAINT—1,747 bgs, C K Williams Co, Larnaca
EPSOM SALT—360 bgs, Woodward & Dickerson, Hamburg
FISHLIVER OIL—50 dms, Yokohama
FLUORSPAR—3,414 tons, Chas Kurz & Co, Tampico
FUEL OIL—75,000 bbls, Socony Vacuum Oil Co, Curacao
GLYCERINE—504 tons, Lagos
GYPSUM—12,597 tons, U S Gypsum Co, Hantsport
KAOLIN—24 bgs, Woodward & Dickerson, Piraeus
LIVERMEAL—445 bgs, Rotterdam
NAPHTHALENE—688 bgs, M Friedman Co, Middlesbrough
5,301 bgs, Rotterdam
1,112 bgs, Antwerp
1,305 bgs, Hull
OLIVE OIL—48 dms, Chase National Bank, Sfax
PEATMOSS—800 bls, E Dunwoody, Bremen
2,815 bls, Bremen
PETROLEUM, CRUDE—124,388 bbls, Socony Vacuum Oil Co, Covenas
190,993 bbls, Socony Vacuum Oil Co, Mena Al Ahmadi
159,109 bbls, Socony Vacuum Oil Co, Las Piedras
216,223 bbls, Atlantic Refining Co, Amuay Bay
112,654 bbls, Atlantic Refining Co, Tripoli
134,215 bbls, Atlantic Refining Co, Pamatacual
472,495 bbls, Gulf Oil Corp, Puerto La Cruz
413,254 bbls, Gulf Oil Corp, Mena Al Ahmadi
154,299 bbls, The Texas Co, Las Piedras
SODIUM BICARBONATE—998 bgs, Manchester
TALC—550 bgs, Leghorn
UREA—13,000 bgs, Middlesbrough
VALONIA EXTRACT—300 bgs, Port Iero

San Francisco

AMMONIUM CHLORIDE—995 bgs, Chemical Manufacturing Co, Manchester
CALCIUM CHLORIDE—384 bgs, C M C Chemicals, Manchester
FORMATE—375 bgs, C M C Chemicals, Glasgow
CARDAMOM—12 cs, H M Newhall & Co, Mangalore
CASEIN—70 bgs, Royal Bank of Canada, Buenos Aires
200 bgs, Borden Co, Buenos Aires
COCONUT OIL CAKE—4,000 bgs, Internatio Rotterdam, Cebu
1,000 bgs, Pacific Vegetable Oil Corp, Cebu

COPAL GUM—70 bgs, H W Peabody, Manila
59 bgs, Internatio Rotterdam, Manila
COPRA—1,150 tons, Cargill Inc, Cebu
2,000 tons, Pacific Vegetable Oil Corp, Cebu
1,000 tons, Pacific Vegetable Oil Corp, Manila
CAKE—3,000 bgs, Van Waters & Rogers, Manila
4,480 bgs, Pacific Vegetable Oil Corp, Manila
OIL MEAL—7,100 bgs, Balfour Guthrie, Manila
3,000 bgs, Manila
MOLASSES—3,372 tons, Southwestern Sugar & Molasses Co, Hinigaran
6,738 tons, Iloilo
OLIVE OIL—500 dms, A Giurlani & Bros, Leghorn
PAPRIKA—100 bgs, Sopac Transport, Marseille
100 bgs, West Coast Spice Co, Marseille
PEPPER, RED—200 bgs, M S Cowen & Co, Kobe
PETROLEUM CRUDE—30,077 tons, Tide Water Assoc Oil Co, Umm Said
23,512 tons Tide Water Assoc Oil Co, Mina Saud
63,650 tons, Standard Oil Co of California, Sungai Pakning
23,132 tons, Tide Water Assoc Oil Co, Sungai Pakning
QUEBRACHO EXTRACT—2,300 bgs, International Products Corp, Buenos Aires

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API Division Will Hear Atomic Energy Lecture

Two talks on petroleum refining and atomic energy will be special features of the midyear meeting of the division of refining of the American Petroleum Institute in St. Louis May 9 through 12. This year's midterm meeting will commemorate the twenty-fifth anniversary of the establishment of the API's refining division. It will be held in the Jefferson hotel.

Chester F. Smith, vice-president of Standard Oil Company (New Jersey), New York, and a former API vice-president for refining, will speak on "Refining—A Story of Progress." The atomic energy address will be a combination lecture-demonstration by Dr. Hubert N. Alyea, professor of chemistry at Princeton University entitled "Atomic Energy—Weapon for Peace."

This year's meeting opens on May 9, with morning and afternoon sessions on analytical research, and half-day sessions on corrosion and training. Smoke and fumes and product control will occupy May 10, while an evening session will discuss pressure vessels. Refining processes, and fuels and lubricants are on the program for May 11 in addition to the traditional dinner meeting. Group sessions on refinery maintenance and petroleum products will complete the program on May 12.

In advance of formal opening of the midyear meeting, there will be a series of committee meetings. These will start on May 6 and will continue throughout the entire session. In all, some thirty-six committee meetings will be held.

Dr. Lulek Announces Plans To Become Chemical Adviser

Dr. Ralph N. Lulek, former vice-president in charge of manufacturing and research at Grace Chemical Company, New York, a subsidiary of W. R. Grace & Co., has announced plans to become a chemical and management consultant. With Grace since 1953, Dr. Lulek will continue on the board of directors and as a consultant to the company.

Dr. Lulek began his career with E. I. duPont de Nemours & Co. as a chemist in 1925. After having served with Publicker Industries as plant manager, he joined Heyden Chemical Corporation in 1946 and was named vice-president and director in 1948. During his career, he served as vice-president and director of St. Maurice Chemicals, Ltd., and director of Jameson Pharmacal, Ltd., both in Canada, as well as Jameson Pharmacal Corporation, Nyal Company, and American Potash & Chemical Company.

Snell Makes Ostrow Sec'y

The board of directors of Foster D. Snell, Inc., New York, has elected Philip B. Ostrow assistant secretary. Mr. Ostrow has specialized in accounting for service organizations. Before joining Snell as chief accountant and credit manager in 1951, Mr. Ostrow was accountant for Lorimer & Rose. At Snell he has supervised the change-over to machine accounting and has installed the accounting system for government research and development contracts.

Trade Briefs

Rayonier, Inc., New York, has joined the Manufacturing Chemists Association.

Dodge & Olcott, Inc., New York, has announced the development of a new perfume called "Floritys."

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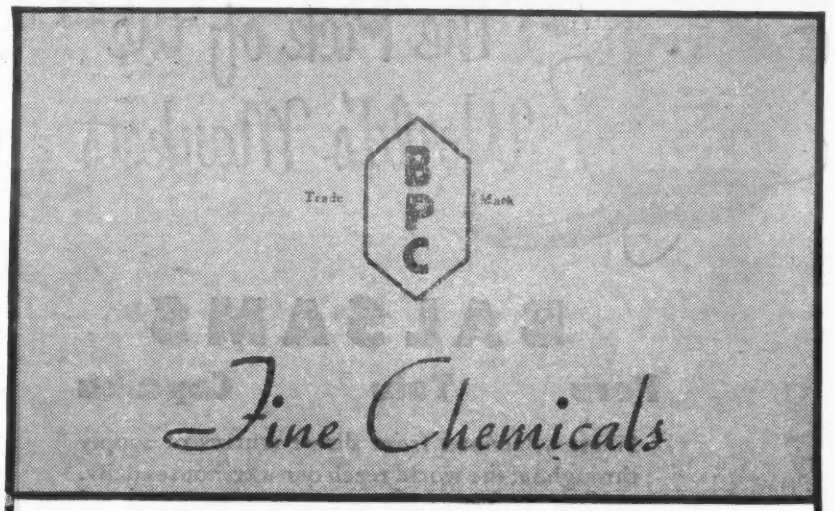

PHARMACEUTICAL CHEMICALS

AMINOACETIC ACID
AMINOPHYLLINE
AMPHETAMINE (base and salts)
BENZOCAINE
BENZYL ALCOHOL
CHLORBUTANOL
8-HYDROXYQUINOLIN
OXYQUINOLIN BENZOATE
OXYQUINOLIN SULPHATE
POTASSIUM OXYQUINOLIN SULPHATE
PENTOBARBITAL SODIUM
PHENOBARBITAL
PHENOBARBITAL CALCIUM
PHENOBARBITAL SODIUM
SECOBARBITAL SODIUM
THEOPHYLLINE

AROMATIC and FLAVORING CHEMICALS

BENZYL ALCOHOL
CINNAMIC ACID
DIACETYL
ETHYL PHENYL ACETATE
PHENYL ACETIC ACID

TECHNICAL CHEMICALS

BENZALDEHYDE
BENZOIN
BENZYL ALCOHOL
BENZYL CHLORIDE
BENZYL CYANIDE
CYANOACETAMIDE
DIBENZYL ETHER
DIPHENYLACETIC ACID
ETHYL CYANO ACETATE
GLYCINE ETHYL ESTER HYDROCHLORIDE

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N,N'-DIBENZYL ETHYLENE DIAMINE DIACETATE
PHENYLACETAMIDE
BETA PHENYLETHYLAMINE
POTASSIUM PHENYL ACETATE SOLUTION
PHENYL ACETIC ACID

MALONATES

ALLYL-1-METHYLBUTYL DIETHYL MALONATE
n-BUTYL DIETHYL MALONATE
ETHYL-DIETHYL MALONATE
ETHYL-1-METHYBUTYL-DIETHYL MALONATE
ETHYL-1-METHYLPROPYL-DIETHYL MALONATE
ETHYL-PHENYL-DIETHYL MALONATE
1-METHYLBUTYL-DIETHYL MALONATE
1-METHYLPROPYL-DIETHYL MALONATE
PHENYL DIETHYL MALONATE

NEW INTERMEDIATES

α-ACETYL-α-TOLUNITRILE (α-Phenylacetoacetonitrile)
ALLYL ACETONE (5-Hexen 2-one)
BENZILIC ACID
CHRYSANTHEMUM-MONOCARBOXYLIC ACID ETHYL ESTER
2,5-DIMETHYL HEXADIENE-1,5
2,5-DIMETHYL HEXADIENE-2,4
ETHYL-α-ALLYLACETOACETATE (Ethyl-2-Acetyl-4-Pentenoate)
PHENYL ETHYL ACETIC ACID (α-Phenyl Butyric Acid)
1-PHENYL-2-PROPANONE (Phenyl Acetone)
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Essential Oils, Aromatics, Flavorings

The essential oils market was fairly active last week. There were a number of price changes, the majority downward. In this group were rectified birchtar oil which was off 25 cents, Dalmatian sage oil, down 15 cents and Javanese citronella oil, reduced 10 cents per pound. NF cardamom oil was reduced $1 per pound. The decline in citronella oil reflected somewhat of an anomalous situation in that commodity. Despite the imminent danger of an outbreak of war in the Far East, demand for the oil has slowed up to the point where slight concessions were being made in order to stimulate consumer interest. If the situation in Formosa should deteriorate further, however, the price of citronella oil and other essential oils such as camphor, patchouli and sandalwood, will almost assuredly advance sharply.

The two oils advanced last week were sandalwood and spearmint. Spearmint oil has been slowly edging higher as consumers stepped up takings. The high price and growing tightness of peppermint oil has been responsible to a significant degree for the increased inquiry for spearmint. Sandalwood oil has been steadily advancing during the past few months and appeared certain to go higher. Manipulations by the government at origin have forced up the price of sandalwood logs from which the oil is produced with the result that spot prices on the oil have gone up about $2.50 to $3 in the last eight months.

There were price hikes in some aromatic chemicals made from higher priced essential oils in addition to some in the less important aromatics. Amyl cinnamic aldehyde was noted to have advanced 5 cents while benzyl cinnamate was 25 cents higher.

The seeds and spices group was somewhat more active last week, with a number of price changes reported. Ceylon cinnamon No. 2 was up 1 cent in addition to a ½ cent rise in Czech fennel seed and an across-the-board hike in ginger root with the exception of Nigerian split quality. Both the African and Jamaica qualities of ginger were raised 1 cent per pound.

On the declining side were Mexican and Jamaican pimento, both off 2 cents, French celery seed, down 1 cent, Spanish thyme, ½ cent and Polish and Turkish qualities of poppy seed. The former was reduced ½ cent per pound, and the latter, 1 cent.

Price Trends

Advanced

Amyl cinnamic aldehyde, 5c. per lb.
Benzyl cinnamate, 25c. per lb.
Cinnamon, Ceylon #2, 1c. per lb.
Fennel seed, Czech, med., ½c. per lb.
Ginger, African, 1c. per lb.
Jamaica, 1c. per lb.
Oil, sandalwood, 50c. per lb.
Spearmint, 15c. per lb.

Reduced

Celery seed, French, 1c. per lb.
Oil, birchtar, rectified, 25c. per lb.
Cardamom, NF, $1 per lb.
Citronella, Java, 10c. per lb.
Clove leaf, unrectified, 10c. per lb.
Sage, Dalmatian, 15c. per lb.
Pimento, 2c. per lb.
Poppy seed, Polish, ½c. per lb.
Turkish, 1c. per lb.
Thyme, Spanish, ½c. per lb.

Comparative Price Indexes

(100 =1949 average)

Last week	Prev. week	Last month	April 23, 1954
136.79	136.84	136.85	147.87

(*For Current Prices see page 9*)

Essential Oils

Abies Siberica—The current market on this oil ranged from $3 to $3.50 per pound. Demand was routine with supplies ample for consumer requirements although not plentiful.

Amyris — The market was unchanged since last reported. Prices were firm at $1.40-$1.95 per pound. Demand was quiet.

Bergamot — Demand for this oil has been slow for some months now. Prices have come down and appeared slated to decline further since the market was said to be on the weak side. Current prices ranged from $9.50 to $11.25 per pound with some reports of lower levels. Supplies were adequate to accommodate consumer needs and expected to continue in the future.

Birchtar—Rectified oil of birchtar has been reduced 25c. from previous levels. The current market ranged from $1.75 to $2 per pound. Crude oil prices held unchanged.

Bois de Rose—The market was very firm, having advanced substantially in recent weeks. Prices held steady at $3.80-$6 per pound, depending upon seller.

Calamus—There were no price changes in this oil last week. The market was routine with supplies adequate for current inquiry. Quotations currently ranged from $12 to $20 per pound.

Camphor—Spot inquiry was steady. If the supply situation were not short, dealers might be inclined to lower their quotations somewhat to create more interest in this item, but the high cost of replacement plus the uncertainty of supply precludes the possibility of any such move. The military situation in the Formosa area is rapidly approaching the aspects of a severe crisis with the result that commodity markets in Formosa and Japan are exhibiting bullish tendencies.

Cardamom — The spot market was easier last week with minimum quotations declining $1 per pound. Current quotations ranged from $35 to $50 per pound.

Citronella—The spot market was off 10c. on Java quality oil in view of the reluctance of consumers to pay the current high prices quoted on citronella oil. Java type (Formosa) citronella oil was firm at $1.80-$2.50 while Ceylon oil was easy at $1.05-$1.70. With the invasion of Formosa imminent, the outlook, pricewise, was for continued firmness on the whole, unless demand should decline considerably, in which case dealers would probably find it necessary to lower current prices.

Clove—There was no change in clove bud oil last week. Competition among sellers has driven the price to a low of $3.25 per pound despite high replacement costs. Unrectified clove leaf oil was reduced 10c. to $1.40-$2 per pound. Demand was fair, on the whole, according to trade sources queried.

Eucalyptus—The market was very firm last week in face of rising markets at origin. There has been some increase in quotations by dealers in this market but minimum quotations continue to hold.

Lemon—The usual seasonal increase in demand for lemon oil has been slow to materialize this year, according to trade sources. The late Spring has been responsible for a good deal of the slowness in demand to date. It was expected that inquiry would commence to swing into its seasonal high in the near future since Summer will soon be upon us. Prices continue unchanged although there has been some slight firming in some quarters.

Lemongrass — Shipping prices for lemongrass oil from India continue to fluctuate considerably and have been exceedingly irregular, according to informed sources. The tense situation over Formosa has contributed substantially to the current uneasiness, it was said.

Lime—Prices on lime oil continued quite weak despite assurances that the market would rise. Lime oil prices were currently said to be at their lowest point but consumers have been slow to take advantage of the situation to date. Buying was irregular and has yet to manifest any seasonal trend.

Orange—The market on spot remains very weak. Supplies were over abundant and it did not appear that the market would gain appreciable strength even when seasonal factors begin to make themselves felt.

Peppermint — Prices held steady although there were some rumors of peppermint, redistilled being quoted at slightly below the minimum level of $8.10 previously reported. Supplies of high test oil continued to be far from plentiful and the outlook for the immediate future was for firmness.

Sandalwood—Spot prices jumped another 50c. last week bringing the current market to $13-$15 per pound. Supplies were tight and demand steady.

Spearmint—The spot market advanced 15c. last week. Current levels ranged from $4.25 to $5.50 per pound. Supplies were ample but not excessive.

Aromatic Chemicals

Amyl Cinnamic Aldehyde—Prices were advanced 5c. per pound last week. The current market ranged from $1.75 to $2.20 per pound.

Benzyl Cinnamate — Quotations were raised 25c. per pound last week bringing

For Late Market Developments, See Page 4

the current market to $3.60-$3.90 per pound.

Hexyl Cinnamic Aldehyde—The current market ranged from $4.00 to $7.50 per pound. Demand was routine.

Miscellaneous

Anise Seed—Mexican anise seed was easier and currently quoted at 33c. per pound. Spanish anise was also easy, being listed at 36c. per pound.

Cassia—Most grades were quiet during the week although a steadier tone was noticeable in shipment offerings. Prices have retreated from peaks reached last December and were expected to attract renewed buying interest. Both Batavia and Korinje qualities were available at attractive quotations for future delivery.

Celery Seed—French celery seed declined 1c. per pound last week and was quoted at 41c. per pound, on spot. Indian seed was unchanged at 17c.

Cinnamon—Ceylon cinnamon No. 2 advanced 1c. last week and was quoted at 54c. The "0000" grade was steady at 75c.

Fennel Seed—Czech, medium fennel seed advanced ½c. last week and ranged from 12c. to 12½c. per pound.

Ginger—Cable prices on African qualities have advanced sharply, according to trade sources. Jamaica cables were firm. Supplies were generally tight with the market tending to advance on any sizable buying movement. Sierra Leone ginger advanced 1c. to 35c. last week. Jamaica grades No. 2 and 3 were advanced a similar amount. The former was currently quoted at 44c. and the latter, 43c. Nigerian split ginger was firm at 30c.-31c.

Pepper—Spot prices slipped fractionally with buyers operating hand-to-mouth. The Indian market followed the spot market but there was not enough pressure originating in India to cause concern among dealers here. A slight willingness to shade prices was reported on Lampong and Sarawak for April shipment from Singapore but since concessions offered were small, they did not create much interest here. The outlook for the immediate future was for a continuation of the current situation since April and May are not months of heavy consumption.

Most grades of red pepper have been in the doldrums for some time. The basic cause of this was the heavy imports of Turkish chillies and the pressure they exerted upon the market. As consumption has made heavy inroads into the stocks of these cheap grades, signs of strength are developing in the market.

Pimento—Spot pimento prices continued to decline last week, falling off 2c. per pound. The current market was 85c. on the Jamaica quality and 68c. on the Mexican spice. For the past two months, prices on this item have steadily declined in face of dull consumer interest. Buying has been mostly hand-to-mouth and the failure of Russia to come into the market in a big way as occurred last year was instrumental in deflating the high price trend, it was felt. Consumer interest was expected to pick up, however, and any such manifestation would very likely result in reversing the current downward trend.

Poppy Seed — The spot market was easier last week on the Polish and Turkish qualities. The former was off ½c. while the latter was reduced 1c. per pound. Polish poppy seed was reduced to 26c. while Turkish quality was currently offered at 23c.

Thyme—The market remained dull with consumer inquiry slow. Spanish thyme declined ½c. to 9½c. while French material was unchanged at 20c. Supplies were adequate to cover consumer needs and expected to continue.

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Textile and Leather Chemicals

Price Trends

Advanced
Egg albumin, flake, 8c. per lb.
powder, 8c. per lb.

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 23, 1954
103.98	103.97	102.12	95.24

(For Current Prices see page 9)

Reports current in the trade indicated that domestic users were seriously considering the use of top quality Brazilian tapioca flour instead of potato starch highlighted the market during the past week. Some sellers stated that the tight supply situation of potato starch on the domestic scene combined with the comparatively high cost of imported material, mainly Dutch, has caused this view of tapioca flour substitution.

Egg albumin prices fluctuated over the past week in some quarters. Competition was stronger and demand stepped up slightly for immediate needs. Flake was increased 8 cents per pound in some quarters, while technical and egg yolk were well held at unchanged levels. Aside from the new interest in tapioca flour by potato starch suppliers which indirectly caused some firming, other sizing materials remained firm.

Domestic producers of rayon and acetate staple and yarn shipped a record total of 124,700,000 pounds during March, 22 percent more than in February and 17 percent more than the previous high of December, 1954, it was reported by Textile Oragnon. Shipments in March consisted of 122,900,000 pounds to the domestic market and 1,800,000 pounds for export. Rayon and acetate shipments in the first quarter of the year amounted to 329,200,000 pounds, 30 percent larger than shipments in the corresponding period of 1954 and 10 percent greater than the first quarter of 1953.

The Department of Agriculture has announced that it will offer to sell about 750,000 bales of its surplus cotton at 105 percent of the current support price, plus reasonable handling charges, or at the domestic market price, whichever is higher. The present support price is 90 percent of parity, or an average of about 32 cents a pound.

Chemicals

Bichromates — Deliveries continued in good volume last week. Prices were without change and firm.

Sodium Acetate—Quotations were unchanged and steady, according to producers. Business was moderate for prompt needs.

Sodium Hydrosulfite — Market demand was reported active for prompt delivery. Prevailing quotations were well held.

Sulfonated Oils—A fairly good demand was noted over the past week. Market quotations were unvaried for all grades.

Sizing Materials

Albumin Blood—Consumers continued to absorb good sized lots for prompt delivery. Prices remained steady and unchanged at 65c. to 80c. per pound, according to quantity.

Corn Dextrin—Prices held at former levels. Consumer buying has increased over the past month, with indications of continued heavy demand for some time to come. Gum was quoted at $8.95 per 100 pounds, paper bags, carlots, New York delivery; canary $8.69, dark $8.79, and white $8.53, same basis. Less carlots were 15c. per 100 pounds higher.

Corn Starch—A stable price picture was indicated in this market. Demand was active. Material was reported available in good volume for prompt delivery. Pearl was quoted at $7.14 per 100 pounds, paper bags, carlots, and powder, $7.29 per 100 pounds, New York basis. Smaller quantities were 15c. per 100 pounds higher. Visible corn supply was lower, declining 979,000 bushels to 37,069,000 bushels for the week ending April 15, compared with 24,009,000 bushels for the corresponding week last year, according to the Chicago Board of Trade.

Egg Albumin—Prices fluctuated over the past week in some quarters. Competition was stronger and demand stepped up slightly, according to some sources. Flake was raised 8 cents per pound in some quarters. It ranged from $1.64 to $1.68 per pound, depending on quantity and seller, and powder ranged from $1.68 to $1.72 per pound. Technical was maintained at .70c. to 85c. per pound as to seller and quantity. Buying interest was said to be quiet.

Egg Yolk—Steady consuming demand helped maintain a comfortable picture over most of this market last week. Although albumin prices increased in some quarters, yolk prices were unchanged and firm. Trading was restricted to actual needs, with stocks on spot ample. Spot stocks were maintained at $1.12 to $1.14 per pound, depending upon quantity.

Potato Starch—Sources reported that some users were switching from imported Dutch potato starch to top quality Brazilian tapioca flour. Chief reason for the change was the low cost of Brazilian material, which, according to some domestic users, offers about the same finished product as potato starch. The domestic starch market was in about the same condition as in the past few weeks, with practically no material available. Maine and Idaho product was scarce due to high cost of low grade potatoes. Imported Danish starch was reported to be unavailable. Dutch material of good quality, however, was being imported and sold in abundant quantities. Domestic starch continued nominal at 7¼c. per pound, carlots f.o.b., mills, Maine, and 6¾c., Idaho. Active consumer interest in the foreign product because of the tight situation on the domestic scene has not yet caused any alteration in prices, but sources noted that changes could be made at any time. Dutch starch was quoted at 7.90c. to 7.95c. per pound, carlots, exdock, duty paid, for prompt shipment and French at 7.35c. per pound, same basis.

Tapioca Flour—An improved tone was noted throughout this market last week. Consumption was said to be picking up slightly, and interest in replacements was fairly active. Brazilian flour of top quality was quoted at 6¾c. per pound, carlots, exdock, for prompt shipment. Siamese material was held at 6½c. per pound, carlots, exdock, and medium at 5.90c., same basis. AAA Java flour was listed at 6.10c. to 6.15c. per pound, carlots, exdock.

Tanning Materials

Some hides and skins may now be imported freely into Canada from any country without licensing procedures, effective April 4, it was announced by the British Board of Trade.

Those listed are raw, dried, salted, or pickled skins; untanned hide splits; sheep and lamb skins, being grains and fleshes untanned. Raw wooled sheep and lamb skins and raw fur skins are not included in the new world-open general license list, but current open individual licenses for import of raw fur skins from dollar areas can now include raw wooled sheep and lamb skins.

Chestnut Extract—Demand was reported confined to moderate quantities for prompt needs. Quotations were without change. Liquid 25 percent tannin was quoted at 4c. per pound, tankcars, f.o.b. works; 4¾c. per pound, barrels, carlots, and 5.10c. barrels, less carlots; powdered 60 percent tannin, 10.32c. per pound, bags, carlots, and 11.02c. bags, less carlots, same basis.

Myrobalans—Buying was light and market steady. Shipment offers were limited. Assorted JI's were quoted at $66 per ton, exdock, crushed, $78 to $80, and Bombay $60, same basis. Solid extract was maintained at 7¾c. per pound, exdock, plus duty.

Quebracho Extract—The market was firm at unchanged quotations. Business was reported spotty. Solid ordinary, guaranteed 63 percent tannin was quoted at 11 21/32c. per pound, exdock, plus duty, and clarified 64 percent at 12 23/64c. per pound, same basis.

Valonia—The recent advance in cups and beards held firm. Cups ranged from $46 to $48, exdock. Beards were in limited supply and nominal at $66 to $68 per ton, same basis. Extract was firm at 8c. to 8¼c. per pound, exdock, plus duty.

Wattle—This market was steady, replacements were unchanged, but closely held. Buying interest was fair. Fair average bark was quoted at $98 per ton, exdock, and merchantable at $94 per ton, same basis. East African extract, 60 percent tannin, was quoted at 9¾c. per pound, exdock, plus duty and South African at 10c. per pound, same basis.

For Late Market Developments, See Page 4

Protective Coatings Materials

Price advances of ½ cent per pound were slated to go into effect May 1 for black, brown and yellow iron oxides. Increased labor and freight costs were cited as the main causes of the forthcoming advances. Red iron oxides were not due to change. Copper oxides continued quite firm, with one producer raising its prices 2 cents per pound for the black oxide. Other sources maintained their listings without change.

Demand for pigments has so far maintained the good stride it hit several weeks back. The paint industry has been in the market actively for spring needs, after getting off to a rather slow start. However, now that sales have moved into their full seasonal volume, industry sources expected no drop in momentum until perhaps around the beginning of June. The price advances for some pigments that went into effect at the first of the year caused some added buying in anticipation, and these stocks in consumer's hands have been worked down, it was believed by industry sources, adding to the buying pressure currently felt in the market.

The strike at the facilities of one calcium carbonate producer has placed an added burden on other sources in filling the market's current active need for material. Some suppliers reported that their delivery schedules were becoming unavoidably protracted by reason of this situation. One source stated that it was sold out through May. Business in other materials in the fillers and inerts market has continued quite good, with active demand encountered by reason of the current pickup in paint trade sales.

Shellac registered little change over the week either in its current position or for the forward positions. The full effects of the new crop material would be felt in the market only gradually, it was believed. Casein weakened slightly. Few offers were heard from Argentina during the week, and there proved to be relatively little buying interest in this country. Definite word on the prospects for French production was delayed. The flush season in that country will be very late because of cold weather.

Prime Pigments

Antimony Oxide—The current outlook in regard to sales was considered satisfactory to producers. Demand for use in fire retardant paints continued quite good, it was reported, and material was kept moving into consumers' hands at an active rate. Prices were stable at earlier listings.

Copper Oxides—The firmness in prices for copper oxides was demonstrated last week as one producer raised its price for the black pigment to 49½c. per pound in truckload shipments, and to 51½c. per pound in less than truckload amounts, an increase of 2c. per pound over its earlier quotations. The previous low-of-the-range of 47c. per pound was maintained by another source during the week. Scarcity of copper continued to affect the market for related pigments, and indicated that the situation would remain one of tight supplies and firm, if not actually mounting, raw material costs.

Iron Oxides—Price advances of ½c. per pound were slated to go into effect May 1 for black, brown and yellow iron oxides. Red iron oxide prices were not affected. Producers made the move in response to the considerable pressure that has built up on their production costs. Labor and freight expenses were cited as two areas in which increases have materialized, making an advance in the selling price of the product necessary. The new quotations for black iron oxide were listed at 13¼c. per pound in carlot quantities. Brown was due to be raised to 14c. per pound in carlot shipments, and the carlot quotation for yellow was scheduled for 10¾c. per pound.

Lead Pigments—Orders from the paint trade have held the added speed they gained in the recent weeks. Shipments have been quite good, following a rather slow start in the seasonal increase in demand. Producers at the present, however, had no complaints about the rate of consumer demand encountered. Prices have been under some pressure due to the firm situation for the metal, but by presstime no changes had been effected.

Titanium Dioxide—Supplies have moved into a position where the makers were not able to supply customers' needs for inventory building, but found no difficulty in supplying day-to-day consuming needs. Industry sources did not expect an actual shortage to develop, one in which consumers would not be able to get their actual requirements. Even the small pinch in supplies now existing was not expected to persist longer than the end of May or the beginning of June. Demand was rated as quite good at the present, with the upturn in sales in the paint industry adding considerable impetus to the market.

Zinc Pigments—Prices continued quite firm as a result of the continued strength shown by the metal. No changes were in effect during the past week. Buying demand has been reported as quite good from a broad range of the market, and was expected to remain satisfactory throughout the remainder of the season, or until sometime in June.

Price Trends

Advanced
None

Reduced
Casein, Argentine, ¾c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 23, 1954
97.14	97.14	97.13	96.53

(For Current Prices see page 9)

Synthetic Resins

Alkyds—Makers continued to report a good demand, balanced with satisfactory shipping schedules from current output. The essentially healthy business tone in the paint industry, particularly for latex base paints, has injected an encouraging note in the alkyd market, and indicated a continued good rate of demand.

Epoxys—Excellent business has been reported for the first quarter by a number of manufacturers, one of whom stated that its sales records have exceeded those of any quarter to date. Demand has been reported general among consumers, and not limited to any particular phase of consumption. The market was quite adequately supplied at the present, it was stated, from a productive capacity that has been pushed to its peak. One producer's plant, in fact, was reported operating at above its rated peak capacity, because of having lifted its potential output above earlier estimates.

Maleics—Material was reported moving in very good volume to the general satisfaction of almost all manufacturers. Right now the market appeared to be well supplied, however, in spite of the current active buying pressure. Paint and varnish outlets, right at the present, appeared set to carry on with a sizable buying pressure for the immediate future.

Lacquer Materials

Diisooctyl Phthalate—Most producers shared the opinion that business was currently at a very satisfactory level, and that the market was in reasonable balance. Although sufficient material was available to meet demands, the tightness in phthalic anhydride produced some effect on the output of related plasticizers.

Dioctyl Phthalate—Prices remained quite firm at their current level. No makers appeared to be having difficulty in shipping sufficient amounts to their customers, although the supply situation was a good deal tighter than it was some months back. The continued pinch in phthalic anhydride was a factor figuring largely in the DOP market.

Fillers and Inerts

Asbestos—The asbestos market was reported taking a definite seasonal pickup and exceeding the same period last year. Orders for asbestos paper appeared to be picking up in comparison with last month. However, prices were reported very competitive. Orders for asbestos millboard have declined more than usual and competition remains high for the business that is available, it was stated.

Calcium Carbonate—The strike at one producer's facilities has put a great deal of pressure on other suppliers. Some reported considerable difficulty in supplying their customers' needs, and stated that delivery schedules were being unavoidably protracted. One maker reported being sold out through May.

Talc—Material was reported moving quite well, particularly in the past thirty days. Some producers of domestic material stated that they were currently in an

For Late Market Developments, See Page 4

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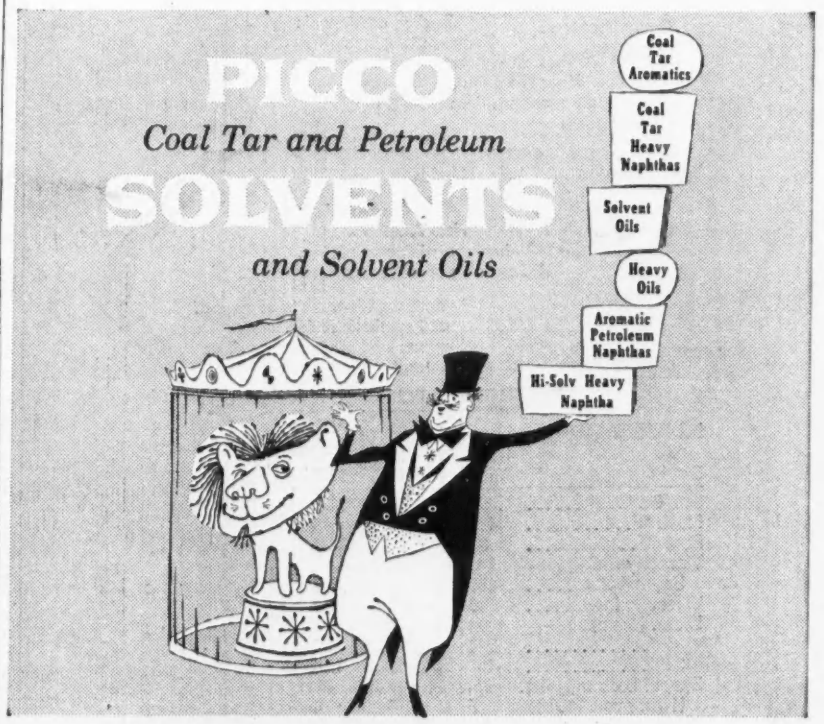

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Grade	INDONEX Plasticizers 633½	634½	637½
Sp. Gr. (60°F)	.994	.995	.997
Flash °F	465	475	515
Pour °F	30	35	55
Viscosity 210°F, Saybolt Sec.	107	137	307
Viscosity Index	—130	—130	—108
Distn. (1mm) °F 5%	362	366	412
30%	431	435	514
Evapn. Loss mg/10g. (1 hr. oven 100°C)	5	5	4

INDOIL® CHEMICAL PRODUCTS

INFORMATION

For additional information on INDONEX Plasticizers, write for INDONEX Plasticizer Technical Bulletin. Your request will be given prompt attention.

INDOIL CHEMICAL COMPANY
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Chicago 80, Illinois

oversold position. The paint trade has been ordering quite actively, and no slackening in this direction has come into evidence.

Natural Resins

Copal, Dammar Gums—All grades were reported quite firm in price. Demand has continued at a good clip, it was stated, with the result that some of the more popular grades were in none too ample supply. Consumption abroad was also active, contributing to the firm situation n this country. As a result, dealers could see no end to the current firm market position these materials occupy.

Shellac—The effect of the coming Bysaki crop has been very slight so far, as had been expected. Dealers in this country felt that a slight weakening in the market position of this material was due, but that it would arrive only gradually, and might not come into evidence until early summer. Holders in India were reported convinced that a need for replacement buying in this country would keep consumers in the market over the coming weeks.

Miscellaneous Materials

Casein—Prices during the week eased slightly as production in France exerted some of its influence on the market. Prices for Argentine material on a spot, duty-paid basis reached a level of 22c. per pound, down from the quotation of 22¾c. current at the end of the week previous.

Considerable interest centered on the prospects of the coming crop in France, which has offered some uncertainty. The weather in producing regions in that country has been reported quite cold, with the result that the start of the flush was somewhat delayed. French production this year, when it finally reaches consumers, was expected by some in the trade to show an improved quality as the result of efforts on the part of producers in that country to raise the quality of their product. The good brands are reported low in fat content.

Naval Stores

Central gum still production during March totaled 5,120 barrels of turpentine and 14,940 drums of rosin, according to the Department of Agriculture. Most plants were processing new crop gum in late March, with old crop gum accounting for less than half of the output during the month. Excluding fire stills, production for the season ending March 31 totaled 175,000 barrels of gum turpentine and 526,110 drums of gum rosin, practically the same as for the previous crop year.

Steam distilled rosin production continued at a high level during March with output at 117,100 drums. On March 31, 63,140 barrels of gum turpentine and 675,410 drums of gum rosin were reported at locations covered by the Department of Agriculture. Of these stocks, the Commodity Credit Corporation controlled 53,540 barrels of gum turpentine and 656,140 drums of gum rosin.

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. Apr.15	Mon. Apr.18	Tues. Apr.19	Wed. Apr.20	Thur. Apr.21
Drums—					
K		...	...	...	$8.22§
N	$8.20	...	$8.37§	...	8.37§
WG	8.25	...	8.25§	...	8.36
WW	...	$8.35	8.54§	$8.43	8.45§
Bags—					
I	...	...	...	7.95	...
K	...	8.00	8.25§	7.95	8.30
M	7.90	7.88§	7.98	...	...
N	8.16§	8.00	8.03	8.00	8.35
WG	8.21	...	8.13	...	...
WW	...	...	...	...	8.65

Tankcars (for week ended April 15)—
K or better, $7.80; M, $7.79§

Sales, USDA
655* 332* 1,230* ... 840*

New York
(per 100 lbs., c.l., Friday)
B through M, $9.10; N, $9.15; WG, $9.20; WW, $9.35

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	.56½	...	.562§	.56¼	...
Sales	8,000¶	...	20,000¶	24,000¶	...

New York, Friday, per gal. 7 lbs., tankcars, 62½c., l.c.l. 73c.

*Drums equivalent. ¶Gallons. §Average price.

Nopco Chemical Plastics Div. Picks Development Engineer

Benjamin S. Collins has been named by Nopco Chemical Company as chief development engineer of its plastics division. He will be in charge of the development program for "Lockfoam," Nopco's foamed-in-place plastic. Associated with Nopco since 1953, Mr. Collins served as a sales development engineer for "Lockfoam" in the Eastern states.

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Copra From Philippines Reported Lower in March

Philippine copra exports during March amounted to 47,583 long tons, a decrease of 28 percent from the previous month and 8 percent from March, 1954, the Foreign Agricultural Service stated last week.

The breakdown of the March copra exports by country of destination is as follows:—United States, 27,393 tons (Atlantic 3,918, Gulf 2,372, Pacific 21,103); Belgium, 500; Denmark, 1,400; Germany, 500; Italy, 500; the Netherlands, 1,000; Norway, 5,500; Sweden, 1,000; Lebanon, 300; Israel, 1,300; Colombia, 4,450, and Venezuela, 3,740 tons.

March exports of coconut oil amounted to 4,232 tons compared with 5,421 tons in February and 5,036 tons in March, 1954. Shipments were as follows:—United States, 3,932 tons (Atlantic 3,702, Pacific 230), and Cuba, 300 tons. On a copra equivalent basis, exports of copra and coconut oil during January through March of this year totaled 197,516 tons, or 14 percent more than the 173,729 tons exported in the corresponding months of 1954.

Technical Data Controls

—*Continued from page 4*

administered by the department's Bureau of Foreign Commerce. It is intended to prevent the acquisition by unfriendly countries of applied technology and industrial know-how of strategic significance. There are no validated licenses required for the export of published technical data; these may be shipped under general license to any destination in the world.

The regulation also provides for voluntary consultation by industry with the Bureau of Foreign Commerce for advice on unpublished technical data of significance to the common security and defense, especially where the technical data is concerned with (1) advanced developments, technology, and production "know-how"; (2) prototypes, and (3) special installations.

To preserve free dissemination of basic information and to help protect the nation from "leaks" which inform unfriendly nations about developments of strategic importance in the United States, the department's Office of Strategic Information is encouraging the exercise of "balanced judgment" and alerting members of scientific and technical societies to the possible strategic importance of certain types of technical data prior to publication.

Bakelite Establishes Lab For Studies of Packaging

A laboratory staffed and equipped for scientific investigation of plastics packaging problems exclusively, has been established by Bakelite Company, New York, a division of Union Carbide & Carbon Corporation. A staff of thirty scientists, engineers and technicians with the most modern types of packaging equipment are gathered at Bakelite's Bound Brook, N. J., plant for the purpose of studying the utilization of plastics for packaging on a scientific basis. The new laboratory will concentrate on practical packaging problems involving the use of "Krene" and "Bakelite" plastics and resins as well as conduct other scientific explorations.

Monsanto Introduces New Styrene Molding Compound

Monsanto Chemical Company has broadened its line of styrene molding compounds to include a heat resistant material, "Luxtrex Hi-Heat 99."

Offered by the company's plastics division, "Lustrex Hi-Heat 99" can tolerate temperatures of 198-204°F. with no heat distortion, according to Monsanto. It is available in colorant blend crystal, pelleted crystal, standard colors and special colors at the same price levels as Monsanto's general purpose material, "Lustrex L." A technical bulletin is available on request, department SR, Monsanto Chemical Company, Springfield, Mass.

Union Carbide Expanding

Union Carbide & Carbon Corporation, New York, has announced plans to build a research laboratory at Parma, Ohio. The new facility would be managed by National Carbon Company, a division, and would include facilities for more than 200 persons. It will engage in basic exploratory work on metallic and nonmetallic compounds of carbon, as well as analogous compounds such as inter-metallics and semi-conductors.

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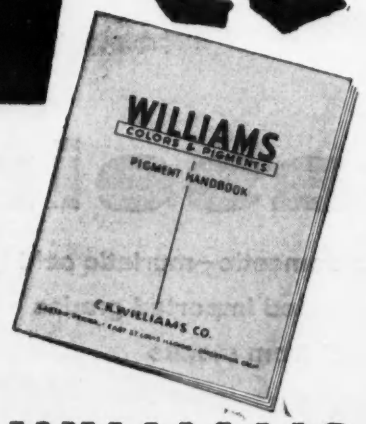

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Olive Oil Production Seen Up in Mediterranean Area

Production of olive oil in the Mediterranean area from the 1954 crop of olives now appears to have been considerably larger than early forecasts, according to the Foreign Agricultural Service. The agency now estimates the output at 900,000 tons.

This is 28 percent less than the tonnage estimated from the 1953 olive crop but 11 percent more than from the 1952 crop, the previous "off" output. The production estimates represent the total oil pressed, including allowances for consumption by growers in countries reporting only commercial production.

A significant decline from the 1953 level of production was imminent as 1954 was a year of low output in the two-year cycle normally characteristic of olive production in the major producing countries. The decline, however, was not so great as was expected early in the season, largely because production in Spain apparently has far exceeded preliminary forecasts. Moreover, generally favorable weather and limited insect damage resulted in above-average production for an "off" year in several areas. And in three countries—Turkey, French Morocco and Yugoslavia — oil production increased sharply from 1953.

Pine Returns to Muralo Co. As V.P. of Central Division

Muralo Company, New York, has announced the election of Milton K. Pine as a vice-president of the company, in charge of both sales and production for its central division.

Mr. Pine's father, John H. Pine, was associated with Muralo from 1903 until his death in 1930. The younger Mr. Pine began his career in the water paint field with Muralo in 1921, remaining with the firm until 1947. He then began manager of the central division for Wesco Waterpaints, Inc., Berkeley, Calif., and held that post until 1952 when Wesco was absorbed by National Gypsum Company, Buffalo, N. Y. Immediately prior to his return to Muralo, Mr. Pine was National Gypsum's manager of special sales.

Mr. Pine's headquarters will be at the new Muralo plant in Chicago, where a complete line of water paint products will be manufactured.

Chemical Fertilizers Seen

—Continued from page 7

it was said, is based on the ability of these elements, when introduced into the soil, to replenish their natural depletion and, when added at a greater rate, to increase crop yields.

Of the three elements, it was noted that nitrogen, synthetically produced in the form of ammonia from natural gas in a process developed during World War II, has proved to be the most spectacular. From production of 419,000 tons in 1940 the industry's capacity at yearend 1954 had risen to 2,800,000 tons, some 700,000 tons in excess of the probable demand for the year ended June 30, 1955.

This overproduction plus the growing rate of competition in the industry was seen threatening a sizable surplus capacity, with a consequent "period of marked price weakness." This condition, however, it was observed, will have no effect on "the excellent long-term growth prospects of nitrogen."

Over-capacity in phosphorus "does not appear as potentially serious as in the synthetic nitrogen industry since no major increase in phosphate facilities is expected in the near future at least," Bullock said.

Potassium continues in a sound supply position and recent discoveries "have uncovered sufficient domestic potash reserves to last about 100 years at current rates of production," according to the New York investment house. The industry, however, is subject to some potential jeopardy from foreign imports.

Population growth has finally caught up with our land resources, and, Bullock concludes, despite over-capacity in nitrogen and potassium for the next several years, the long-term prospect of fertilizers "promises to make any current condition of supply a temporary phase in the industry's growth."

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Petroleum Derivatives

Although the primary difficulty of over-production was still being encountered in the petroleum derivatives market, the supply and demand status of most materials was considered good. Most producers have maintained a higher production rate than was necessary in the recent past with the end result that they have built up their supplies of finished materials almost to peak capacity. It has been practically impossible to place all produced material in the hands of consumers.

Industrial demand for benzol has been fairly active, and appeared to be in good condition for the month of April. Actual production of petroleum source material could be increased if the market demanded it, sources indicated. Cleaners' naphtha sales increased slightly last week as warmer weather brought out light-weight clothing. Sales will not be up to the last few years, however, because of the more washable and synthetic fiber materials on the market. Sales of partial aromatics held their own, with prices remaining firm. Aliphatics moved in sufficient volume to satisfy producers,

An active situation was noted in the wax market, keeping the microcrystalline and paraffin manufacturers' outlook bright. Supply and demand were reported in close harmony. Stocks were moving at such a good rate that there was no movement on the part of the makers toward building up inventories. Prices of propane were altered last week. A ½ cent per gallon decrease was noted in the group 3 price. This represents a low which has not been equalled in liquefied petroleum gas sales history, according to sources. Producers were concerned over the decrease, and were reported utilizing every method to reinforce the price structure.

Solvents and Diluents

Benzol—This material remained in the comparatively good position it has been in for the past six weeks. Producers reported that April, usually one of the best months for sales, will be even better than expected. Increased demand from various areas has caused good movement throughout the industry, sources indicated. Despite the exceptionally bright outlook for the coming weeks, suppliers were quick to note that inventories are still high, and purchased material is being replaced immediately. Quotations were unchanged.

Cleaners' Naphtha—The market picked up slightly last week. Domestic cleaners reported that an increase was noted in sales with the advent of warmer weather. Sales were not expected to reach the peak of several years ago because of the inroads of synthetic fibers and washable materials. Tank inventories of naphtha were said to be adequate to meet any commitments and material is being replaced as quickly as it is sold. Previous listings held firm.

Mineral Spirits—The paint sales season was reported in full swing throughout most of the nation. Mineral spirits demand was spurred by automobile production highs and individual homeowner interest in improving homes and other property. The new two and three color schemes used by automobile makers has proved successful, sources indicated. This has attributed greatly to mineral spirits consumption, with better quality product becoming available in good quantities. Manufacturers stated that there was no shortage of material, however, and orders were being filled with little trouble. Prices were unaltered.

Partial Aromatics — Conditions were noted to be quite good throughout the partial aromatic production scene. Plenty of material was being handled by suppliers, and indications of even better demand were being predicted for the near future by industry sources. Automobile production which has spurred sales in many raw materials has added to the good sales situation of partial material. There was no change in prices during the past week.

Toluol—The lag in government buying attributed to the slow status of this market, according to some sources. Despite a reported good sales month in March and even better prospects for April in most solvent material, toluol demand lagged behind. Inventories were held to be practically at full capacity in some areas. Aviation gasoline sales were off over the past few months. No indications of any change were in sight, however, and prices remained firm.

Xylol—Sufficient supplies of this material were on hand to take care of any added buying interest, it was stated by producers last week. Consumer buying was up slightly because of increased demand for material in various plastics and synthetic rubber producing areas. April is considered by many in the industry as the best month for sales because of production increases and a rise in demand.

Price Trends

Advanced

None

Reduced

Propane, ½c. per gal.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	April 23, 1954
104.32	104.32	104.32	105.14

(For Current Prices see page 9)

Lighter Fractions

LPG's—A typical picture for this time of year was seen in this market during the past week. Plenty of material was available and demand was off due to the warmer weather, according to industry reports. Consumers were being introduced to new uses for the liquefied petroleum gases. Latest price quotation in the group 3 area lists propane at 2c. per gallon. New York harbor listing is 7¾c. per gallon.

Waxes

Microcrystalline—Domestic sales were said to be heavy and the market was in good condition throughout the industry. Demand was strong and supply was meeting most commitments as they arose. The export market picked up because of a projected rise in freight rates in April. Both Latin American and European buyers maintained a strong interest. Refined material and other grades moved equally well.

Paraffin—A bright situation was noted in all grades of paraffin wax last week. Consumers on both the domestic and foreign markets were buying product as fast as the manufacturers could produce it, according to some reports from the industry. The situation is expected to remain good for some time to come. No price changes were noted.

Miscellaneous

Crude Oil—The Texas Railroad Commission announced the production allowable figures for May last week. The new allowable is 3,072,150 barrels per day based on an operation schedule of 16 days.

The daily average production of crude oil and lease condensate for the week ended April 8 was 6,811,400 barrels, according to the American Petroleum Institute. Crude oil production in Saudi Arabia during March amounted to 31,537,927 barrels, or and average of 1,017,352 barrels per day.

White Mineral Oils—The supply status of this material was considered quite healthy over the past few weeks. Demand is up slightly, but suppliers indicated that they are prepared to fill any additional orders immediately. Market prices remained the same.

Los Angeles Petroleum Market

Los Angeles.—The LPG market witnessed little change. Demand continued to ease for propane but listings remained firm at .059 per gallon, tankcars, f.o.b. Los Angeles. The supply position was better maintained although no excessive surplus was reported. No leveling in demand for butane was anticipated with supplies limited and quotations steady at .069 per gallon, tankcars, f.o.b. Los Angeles.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended April 9 totaled 269,051,000 barrels, according to data reported to the Bureau of Mines. Compared with the total of 266,563,000 barrels for the preceding week, this represents an increase of 2,488,000 barrels comprising an increase of 3,181,000 barrels in stocks of domestic crude and a decrease of 393,000 barrels in stocks of foreign crude.

For Late Market Developments, See Page 4

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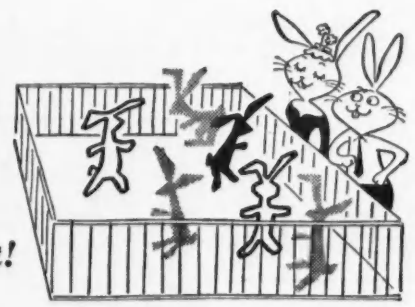

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Oils, Fats and Waxes

This market was dull and listless. Trading was restricted and an easier tone developed last week. Crude cottonseed oil remained steady and unchanged, while soybean oil was irregular, closing slightly higher. Peanut oil was unsettled and fractionally lower, while corn oil was firm with cottonseed. Trading in coconut oil was slow, but shipments were well held. Copra was steadier, with trading limited.

Reduced buying interest weakened tallow and greases and all grades were slightly lower. This brought increased offerings, but buyers showed no interest except at still lower levels. Export inquiry was fairly active, but actual business was slow. Improved demand for oleo oil and stearine resulted in fractional advances for both materials. Lard was easier and slightly lower.

Keener competition from lower cost of Brazilian castor oil caused producers of domestic oil to cut No. 3 technical, 1¾ cents per pound and other grades ½ cent per pound. Hydrogenated grade was the only one not affected. Oiticica oil also declined, which resulted in active trading for prompt and forward delivery at the lower level. Tung oil was quiet, but steady at current prices. Linseed oil continued inactive, but the low cost of meal kept oil in a firm position. Rapeseed oil was finally dropped fractionally to stimulate business.

There was no improvement to the slow demand for oilmeals. Users continued to limit purchases to actual needs. Cottonseed meal remained steady because production was tendered to the government under the support program, while linseed and soybean meals were dull and featureless.

Buying interest in vegetable waxes continued on a hand to mouth basis. Crude carnauba was unchanged and nominal, while refined grades were lower. Yellow wax was unchanged and steady. Refined ouricury also was available at lower prices. Japan wax on spot was weak, and off 2 cents per pound. Crude beeswax continued scarce and firm.

Vegetable Oils

Castor — Lower cost of imported oil weakened the domestic market and quotations were reduced 1¾c. per pound for No. 3 technical and ½c. for other grades except hydrogenated which was unchanged. No. 1 Brazilian was lower and declined to 12½c. per pound, tankcars, New York, prompt delivery, with fairly active business thereat. Domestic producers were not offering tankcars, but quotations were available on request.

Coconut — Shipments were steadier. Crude was quoted at 11⅝c. per pound, tankcars f.o.b. Pacific coast, nearby; 11⅝c., May; 11½c. June, same basis, and 12⅝c. per pound, New York, prompt delivery.

Corn—Trading was reported light. Crude was unchanged and quoted at 13⅝c. per pound tankcars, f.o.b. mills, nearby and 13½c., June. Refined oil was quoted at 17⅛c. per pound, tankcars, New York, nearby.

Cottonseed — Bleachable cottonseed oil futures continued to display a firm tone last week, reflecting the strength of crude oil. Trading was moderate and mixed. Price fluctuations were narrow, the market closing slightly higher. Consuming demand for refined oil was slow and it was intimated that prices were shadeable. Refined salad was quoted nominally at 16¾c. per pound, tankcars, New York, prompt delivery. Trading in crude cottonseed oil was reported slow, but the market was steady due to light offerings as the bulk of production was tendered to the government under the support program. Crude was nominal at 13⅜c. per pound, tankcars, southeast. Light trading was reported at 13¼c. in the Valley and 12¾c. to 12⅞c., Texas, as to location.

Commodity Credit Corporation awarded contracts for the processing and packaging of 7,780,000 pounds of hydrogenated cottonseed oil, shortening type, from once-refined cottonseed oil. Contract awards follow: 2,000,000 pounds at 5.29 cents a pound, in 3-pound cans, f.o.b. Boonton, N. J.; 800,000 pounds at 6.11 cents in 3-pound cans, f.o.b. Gretna, La.; 680,000 pounds at 6.40 cents, in 3-pound cans, f.o.b. Savannah, Ga.; 160,000 pounds at 5.39 cents in 3-pound cans, f.o.b. Los Angeles, Calif.; 3,320,000 pounds at 5.65 cents, 3-pound cans, f.o.b. Sherman, Texas; 820,000 pounds at 3.64 cents in 50-pound cans, f.o.b. Newark, N. J.

Department of Agriculture has announced that the terms and conditions of its offer to buy linters under the 1954 Cottonseed Products Purchase Program are being changed so as to permit crushers to repurchase undelivered second cut and mill run linters (chemical) tendered to Commodity Credit Corporation on a cellulose basis at ½-cent per pound less than the price at which CCC purchased such linters. Under the 1954 program, announced July 1, 1954, CCC agreed to purchase chemical linters at 3 cents per pound, gross weight, basis 73 percent cellulose yield. Also, crushers could repurchase linters at the tendered price. Under the change, crushers will be able to repurchase linters at the tendered price less ½-cent per pound.

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended April 22 follow:—

	Sales	Cents per pound—High	Low	Close
May	95	15.25	15.15	15.22@15.24
July	89	15.11	15.04	15.07@15.09
September	25	14.50	14.46	14.45@14.48
October	24	14.09	14.04	14.02@14.04
December	16	14.05	13.98	13.98S
January	2	13.96	13.96	13.96S
March	7	14.03	13.95	13.95S

Total sales, 258 contracts.

Memphis.—Crude cottonseed oil held at 13¼c. per pound, tankcars, f.o.b. Valley. Trading spotty. Cottonseed meal offered at $61 per ton, sacked, Memphis; cottonseed hulls, $13.50 per ton bulk and $17.50 per ton, sacked, same basis. Demand fair.

Linseed—Consuming inquiry for forward delivery continued to lag. Users were content to absorb good sized quantities against former contracts. Market remaind steady, reflecting the low prices for meal. Raw oil was unchanged at 12.4c. per pound, tankcars, Minneapolis, April-June delivery.

Minneapolis.—Activity in the linseed oil market continued dull as most users were still comfortably booked ahead. There was prospect of new bookings, however, as many in the trade still have to cover June-August needs, processors said. Some buyers, who normally do not book too far ahead, continued to buy small fill-in lots. Generally, though, the market was quiet. Shipping instructions were good.

Shipments of linseed oil, in pounds, were as follows:—

	1954-55	1953-54
Past week	7,260,000	6,840,000
Since Sept. 1	243,120,000	199,500,000

Flaxseed—Market was firmer, cash seed was advanced 3c. per bushel. Offerings were light.

Minneapolis.—The flaxseed market was firm and higher last week. Offers were limited. Spot and to-arrive sold in the cash market was raised to $3.25 a bushel, delivered Minneapolis. Purchases of seed in the spot cash market ran to less than 10 cars and a few small round lots. To-arrive bookings totaled 7 cars and 2,100 bushels in odd lots. Receipts of flaxseed for all accounts totaled 64 cars, compared with 53 cars the preceding week and 107 cars in the like week last year. Shipments from Minneapolis amounted to 37 cars as against 46 cars the previous week and 9 cars a year ago.

Receipts and shipments of flaxseed, in bushels, were as follows:—

	Receipts 1954-55	Receipts 1953-54	Shipments 1954-55	Shipments 1953-54
Past week	112,000	187,250	64,750	15,750
Since Sept. 1	20,022,750	15,414,900	4,550,250	3,106,700

Oiticica—Prices were lower, which resulted in active trading. Tankcars were sold at 12¼c. per pound, New York basis for prompt and forward delivery. Sellers were quoting at 12½c., which could have been shaded on firm bids. Drums ranged

Price Trends

Advanced

Copra, $2 per ton.
Oil, oleo, ¾c. per lb.
Soybean, crude, ⅛c. per lb.
refd., ¼c. per lb.
Oleo stearine, ½c. per lb.

Reduced

Cocoa butter, 2c. per lb.
Greases, ½c. per lb.
Lard, cash, ¾c. per lb.
Oil, castor, ½c. per lb.
No. 3, tech., 1¾c. per lb.
No. 1, Braz., ¼c. per lb.
Oiticica, ¼c. per lb.
Palm, ¼c. per lb.
Peanut, crude, ⅛c. per lb.
refd., ¼c. per lb.
Rapeseed, ½c. per lb.
Tallow, ½c. per lb.
Wax, carnauba, No. 3 Ceara, refd., pure, 3c. per lb.
tech., 1c. per lb.
Japan, 2c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	April 23, '954
106.67	106.69	108.41	120.29

(For Current Prices see page 9)

For Late Market Developments, See Page 4

from 14c. to 14½c. per pound, depending upon quantity.

Olive—Buying interest continued restricted to actual needs. Volume of business was reported light. Spanish oil was offered at $2.35 to $2.40 per gallon, drums, spot duty paid and Tunisian, $2.15 to $2.20 per gallon, same basis.

Palm—Spot was easier and reduced fractionally. Demand was limited. Drums were quoted at 12⅜c. to 13¼c. per pound, spot as to quantity. Tankcars were unchanged at 11¼c. per pound, prompt delivery.

Peanut—With business slow, market was easier and off fractionally. Crude oil was quoted at 15½c. per pound, tankcars, f.o.b. southeast. Refined oil was quiet and nominal at 19½c. per pound, tankcars, New York basis.

Rapeseed—This market was easier, declining ½c. per pound. Tankcars were reduced to 16c. per pound, New York, for prompt and later delivery. Consuming interest lagged.

Soybean—Crude was irregular, but closed slightly higher. Trading was reported light. Crude was sold at 11⅝c. per pound, tankcars, Decatur, April delivery; at 11½c. first half May; 11⅜c. second half May; 11¼c. asked, June, and 10⅞c. asked, July, same basis. Refined salad oil was higher at 14⅝c. per pound, tankcars, New York, prompt delivery.

Sales and prices of crude soybean oil futures on the N. Y. Produce Exhange in tankcars (60,000 pounds) for the week ended April 22 follow:—

	Sales	Cents per pound—High	Low	Close
May	41	11.30	11.15	11.15@11.25
"	29	10.85	10.23	10.70S
September	4	10.54	10.44	10.44S
"	8	10.29	10.16	10.16@10.20
December	26	10.18	10.08	10.03@10.08
March	6	10.13	10.08	10.00@10.09

Total sales, 114 contracts.

Tung—Market remained steady, despite quiet trading. Imported oil was maintained at 23⅝c. per pound, tankcars, New York, prompt and later delivery. Drums were unchanged at 24⅞c. to 25⅜c. per pound, spot as to quantity. Domestic oil also was well held at 22½c. per pound, tankcars, f.o.b. mills.

Miscellaneous

Castor Beans—This market was quiet and quotations were merely nominal at $105 to $110 per ton, c. and f.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:—

	Pounds—Beans	Oil
Last week		1,100,000
Previous week	6,974,850	3,206,000
Corresponding week, 1954	1,052,250	600,000
Total this year	38,638,895	24,708,000
Corresponding period, 1954	23,279,909	10,804,000

Cocoa Butter—Prices were easier, declining 3c. per pound. Spot stocks ranged from 63c. to 69c. per pound, as to quantity.

Copra—Shipments were steadier and held at $160 per ton c.i.f. Pacific coast, prompt. Trading was reported light.

Fats and Greases

Greases—This market was easier and quotations were slightly lower for all grades. Trading was spotty at the decline. Export business was limited. Yellow grease was lower at 6¾c. per pound, tankcars, delivered; choice white, all hog, 8½c.; not all hog, 8c. House was nominal at 6½c. and brown, 5⅝c., same basis.

Lard—Market was weaker and off fractionally. Cash lard was quoted at 13c. per pound, drums, Chicago.

Oleo Oil—Improved trading stiffened the market and quotations were lifted to 15¾c. to 16c. per pound, drums as to quantity. Oleo stearine also was higher at 11½c. to 11¾c. per pound, barrels, same basis.

Tallow—Reduced demand for domestic and export delivery unsettled the market. All grades were slightly lower. Trading was limited at the decline, with buyers further reducing bids. Bleachable fancy was quoted at 7½c. per pound, tankcars, delivered; extra, 7¼c.; special, 7c. and No. 1, 6¾c. Edible tallow was unchanged at 10¾c., same basis.

Fish Oils

Refined Fish—Moderate trading took place for actual needs. Prices were unchanged. Light pressed oil was quoted at 10c. per pound, tankcars, New York basis. Export inquiry for new crop menhaden was fairly active. Producers asked 8¼c. per pound, f.a.s. Atlantic and Gulf ports with best bids at ½c. less. Light stocks of old crop were maintained at 8¼c. tankcars, works, Atlantic coast. Production of menhaden oil was nil during January and February, compared with 74,850 gallons during the same period last year.

Cake and Meal

Cottonseed Meal—Most of the news in meal was centered around government actions. For example, the government had for sale last week, 23,241 tons of cottonseed meal that was tendered under the support program, of which unconfirmed reports stated that approximately 1,800 tons was sold. Demand for meal was spotty. Prices were fairly steady for forty-one percent at $60 per ton, sacked Memphis; $61 Alabama, $65 Georgia and South Carolina mills for April and May shipments.

Linseed Meal—Trading continued limited. Prices were without change.

Minneapolis.—There was a slack demand for linseed meal but limited production helped maintain prices for nearby delivery. Processors quoted extracted linseed meal at $55 a ton, bulk, in carlots, f.o.b., Minneapolis. Expeller meal brought premiums of $4 to $5 a ton.

Shipments of Linseed meal, in pounds, were as follows:—

	1954-55	1953-54
Last week	10,680,000	12,960,000
Since Sept. 1	465,180,000	473,950,000

Peanut Feed Meal—Trading was restricted to an occasional truck load at $78 per ton for forty-five percent protein. There is still no indication that any vol-

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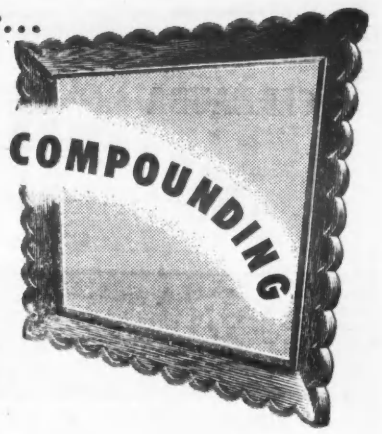

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ume of peanut feed meal will be available for some time to come.

Soybean Meal—Prices of meal continued irregular, with fluctuations in soybean market. Buyers continued to buy for spot requirements. Heavy supplies of beans, along with the general slow demand for mixed feeds, has caused buyers to take a cautious attitude towards meal. Meal forty-four percent unrestricted ranged from $59 to $60 per ton April through June; $57 July-September bulk, Decatur, and available at $60 per ton bulk Mississippi Valley points for April-May shipment.

Waxes

Beeswax—Demand for refined grades continued light and spotty. Market undertone remained steady, due to the tightness of crude grades. Light stocks of African crude on spot were maintained at 62c. to 63c. per pound and for prompt shipment at about 1c. less.

Carnauba — Consumers continued to limit demand to small lots for immediate delivery. Small lots of crude were quotably unchanged, while tonnage quantities could have shaded asking prices. No. 3 Ceara crude on spot was nominal at 62c. to 63c. per pound and Parnahyba, 66c. to 68c., according to quantity. Refined pure Ceara was easy and cut to 70c. to 71c. and technical to 66c. to 67c. per pound, as to seller and quantity. Yellows were steady at prevailing quotations.

Japan—The spot market was easier and quotations declined to 42c. to 44c. per pound, depending upon quantity. Business was slow.

Ouricury—Trading was reported spotty. Pure refined was lower, ranging from 90c. to 93c. per pound, as to seller and quantity, while technical was unchanged at 85c. to 87c. per pound, same basis.

Colombia's Use of Pesticides

—Continued from page 3

ported approximately 150 metric tons of 75 percent DDT and ten tons of dieldrin. The Caja de Credito, Agrario ordinarily imports the following amounts of agricultural pesticides, principally in metric tons:

Aldrin	15-20
Calcium arsenate	90
Chlordan	200
Copper sulfate	910
DDT, to be imported in 1955	200
Dieldrin	15
Dithane	25
Toxaphene	50
Petroleum oils	300,000 gallons
2,4-D (consumption increasing rapidly)	50,000 gallons

In addition, small amounts of household insecticides and rodenticides are imported.

The United States is the principal source for imports and provided prices are comparable, it probably will continue to compete with European countries in the Colombian market. Germany, the United Kingdom, and other European countries now offer competition, particularly for copper sulfate.

Pesticides are distributed in Colombia mainly through branches and agents of the Caja or by the Public Health Service. Household insecticides and rodenticides are distributed mainly through drugstores.

US Butyl Rubber Facilities

—Continued from page 3

placed on them by an independent engineering firm."

"The disposal commission worked out an arrangement that is equitable to both large and small rubber manufacturers. And congress, after due deliberation, added its stamp of approval, satisfied that the taxpayers were getting their money's worth and that the national security would be protected."

Enjay Company, New York, will market the output of butyl rubber returned to private industry last week under the rubber facilities disposal act, O. V. Tracy, Enjay president announced.

Cottonseed Oil to Be Sold To Spain, USDA Announces

The Department of Agriculture last week announced that 5,000,000 pounds of cottonseed oil will be sold to Spain under the agricultural and trade development and assistance act of 1954. The sale is part of a deal involving $21,000,000 worth of surplus farm products to be sold for Spanish pesetas, which will be used by this government in Spain.

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1—4x8 Sturtevant Jaw Crusher.
1—Ribbon type Mixer, steam jacketed.
1—Hardinge Conical Ball Mill, 6'x22".
1—Abbe Ball Mill, 140 gal., Buhrstone lined.
±316 Stainless Steel Tanks, new 100, 200 & 360 gal.
2—Nash Air Compressors, type AL-823.
1—Manton Gaulin Stainless Homogenizer, 125 gph.
2—I&R Vacuum Pumps, 5 H.P., 60' & 100'.
4—New Heat Exchangers, 12" dia. 11' lg., 43 steel tubes, 2 passes.
1—Kennedy-Van Saun Rotary Dryer, 4'x40'.
Davenport Rotary Steam Tube Dryer, 6'x16'.
1—Gruendler Hammer Mill, 10 H.P.—New.
2—Stainless Steel Steam Jacketed Readco Mixers.
1—±316 Stainless Reactor, 265 gals. cap., jacketed.
Abbe Pebble & Tube Mill, 5'x22'—Buhrstone Lined.
1—Patterson Ball Mill, porcelain lined, 17"x27".
1—Patterson Ball Mill, 42x36, jacketed.
3—Dopp Kettles with agitators, 600 gal. cap.
45—Steel Tanks from 100 to 100,000 gals.
2—Large Steam Jacketed Horizontal Mixers.
Robinson Pulverizer ±20, with 2 motors 10 HP each.
Robinson Ribbon Type Mixer, 30"x10'—like new.
4—Horizontal Retorts 200± w.p., A.S.M.E., from 12" to 24" dia., 4' to 12' long.
2—Crystallizers—10' long.
2—Pumps, Deming Deep Well; Diesel Engines, new.
3—3,000 gal. Jacketed Kettles with Turbo Agitators.
1—±10 J. H. Day 300 gal. Sigma Blade Mixer, Jacketed.
H. LOEB & SON 4643 LANCASTER AVE., PHILADELPHIA 31, PA.

EXCELLENT BUYS

BOILERS—304 HP Kewanee 125 PSI H.R.T.
500 HP Heine 180 PSI, 2 drum 40000#/hr.
COLUMNS—72"x29'8" SS 347, welded, 21 trays, 15" spacing, 40 caps/tray.
60"x23'3 Everdur, 24 trays, 1200 caps.
12"x15' SS 347, 15 PSI.
30"x61'6" welded, 30 trays, w/reboiler & condenser, 225 PSI.
CONDENSERS — 2790 sq. ft. Adm. tubes, 2 pass., 100 PSI.
2350 sq. ft. hor., 4 pass., copper tubes, 100 PSI.
1530 sq. ft. 24"x23' Adm. tubes, 75 PSI.
200 sq. ft. 316 SS tubes & sheets, 200 PSI, steel shell 100 PSI.
100 sq. ft. SS 347, 2 pass shell 40 PSI, 6 pass tubes 60 PSI. NEW.
DRYERS—10'6"x36' Spray, SS, gas fired.
5'x15' Rotary Vac., jkt'd., 20% nickel clad, 500 sq. ft. condenser, reducer.
20"x12'2" Rotary jkt'd. welded, gas fired.
KILNS—502-20 & 604-24 Roto Louvres complete.
34"x16'6", 4'x20', 4'x42', 4'6"x50', 5'x24', 5'x35', 5'x40', 5'x67', 6'x60', 8'x72', 8'x125', 9'x80'.
MILLS—#40 Raymond Imp, SS, 40 HP. NEW.
#10 Raymond Imp, SS, 10 HP. NEW.
Stokes 243D Oscillating Granulator.
MIXERS—#1 Simpson, Style B.
67, 27 & 10 cu. ft., SS, jktd. spiral & paddle.
300 gal. Baker Perkins 18-DIM, SS, double arm, tilt.
100 gal. Baker Perkins, jktd., dbl. arm, tilt.
50 gal. W.&P. Size 14BB, double sigma, tilt.
REACTORS—25 gal. 20"x26"x1¼" steel, jktd., agit., copperized contact parts.
600 gal. copper, 100 PSI jkt., 25 PSI int.

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Stokes 2'x6' Rotary Vac. Dryer.
Devine #12 Vac. Shelf Dryer, 40"x42".
Gen. Amer. 2'x1' continuous Rotary Vac. Filter.
2—Allbr. Nell 4x9 Atmos Drum Dryers.
1—Buffalo Vac. Drum Dryer, 24"x20"

CENTRIFUGALS AND CENTRIFUGES
4—Tolhurst 40" Suspended Type.
8—Centrifugals, 12", 20", 26", 30", 40" & 48" Steel, Copper, Stainless & Rubber.
6—Sharples No. 5A Stainless & #6.
2—De Laval Multi Clarifiers 300 & 301.

FILTERS
1—Vallez Filter #49 with 41 Stainless covered 44½" dia. leaves.
Gen. Amer. 2'x1' Rotary Vac. Filter.
Sperry and Shriver 6" to 36" iron & wood.
Sweetland & Oliver Filters.

KETTLES AND TANKS
Dopp 350 gal. Agit. Jack Cl Vac Kettle.
2—Impreg. Units 30" & 36" dia. complete.
500 & 1,000 gal. closed Jack. Steel Kettles.
2300 gal. vert. agit. Jack. Steel Kettle.
1—250 gal. Lead lined Kettle.
Stainless, alum., copper. Glass lined, lead lined and steel kettles and tanks.
Copper & Stainless Varnish Kettles.

PULVERIZERS AND MILLS
2—Mikro Pulverizers #2TH & 4TH.
Abbe 37"x30" chrome-mang. Ball Mill.
Patterson Pebble Mills, 6'x8', 6'x3', 30"x42".
Abbe 30"x30" & 30"x36". Also Jar Mills.
#1 Raymond Autom. Pulverizer, 20 HP.
1—#00 Raymond Mill, 30 HP complete.
2—#0000 Raymond Mills.
Sturtevant #0, 18" hinged Hammer Mill.
Schutz-O'Neill #1 & 20" Pulverizers.
Williams #3 & 2XX Hammer Mills.
Ball & Jewell Rotary Cutters Lab & up.
Jeffrey 18"x18" single Roll Crusher.
Buchanan 5"x12" Jaw Crusher.
2—Robinson 18" & 22" BB Attrition Mills.
1—Lehman 4 roll WC., 12"x36" Steel Mill.
4—Lehman & Kent 3 Roll Steel Mills, 9" x32", 12"x30", 16"x40".
1—Monarch 9"x24" Steel Roller Mill, 3 pr. high. Also 7½x20, 4 Roll.
Houchin 18"x30" 4 Roll Granite Stone Mills.
2—U.S. & Premier 1½ H.P. Colloid Mills.

MIXERS, SIFTERS & SCREENS
Lancaster 6' dia. Vert. Mixer 25 HP.
Kent 3 HP. continuous dry mixer.
Baker Perkins double arm Mixers, 100 & 50 gals. Also single arm Mixers.
Blystone 3000# horiz. spiral mixer.
2—American Tool 300 gal. Churns.
Read 50 & 100 gal. double arm mixers.
Read 80 qt. vert. mixer, 3 speed.
Tyler 3'x5' Vibratory 2 deck Screen.
10—Dry Powder Mixers, 50 to 3,000#.
3—Day 8, 15 & 40 gal. Pony Mixers.
15—Portable Elec. Mixers, ¼ to 3 HP.
6—Lead and Paste Mixers to 150 gals.

MISC. AND SPECIALS
Anderson & French Oil Expellers.
Tablet Machines Single & Rotary Types.
Kane 2 H.P. Gas Boilers, 200# pressure.
1—Knapp Model S Can Labeler M.D.
3—Stokes and Day Powder Fillers.
Filling Machines & Labelers.
Pneumatic Scale Automatic Capper.
1—Howe Mogul barrel and bag packer.
2—Worth 12"x12"x12" Vac. Pumps.
8—Devine, Buffalo, Stokes Vac. Pumps.
Shepherd Elevator 18' lift, 42"x54".
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Centrif., Rotary, Duplex & Triplex Pumps.

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4—SHARPLES C-27 SUPER-D-HYDRATORS 316 S.S. Vapor tight, XP timers and switches.
2—BUFLOVAK 6'x5'6" Single Drum Monel FLAKERS.
1—LEADER 1000 gal. 316 S.S. jacketed, agitated REACTOR.
1—Schaller 500 gal. 316 S.S. jacketed REACTOR.
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1—PFAUDLER 250 gal. Hastelloy "C" REACTOR.
2—I. R. JET REFRIGERATION UNITS 208 and 136 tons.
1—PATTERSON 7'6" Conical BLENDER, rubber lined.
1—RIETZ 30' "Thermoscrew" Conveyor DRYER, 304 S.S.
1—ALLIS CHALMERS 5'6"x25' Rotary DRYER.
1—ILLCO Duplex Ion Exchange NEUTRALIZER, 316 S.S.
1—PFAUDLER 390 sq. ft., 316 S.S. Heat EXCHANGER.
1—Colonial 5,000 gal. 316 S.S. TANK.
1—PFAUDLER 2300 gal. Glass Lined TANK.
2—Link Belt Twin Screw CONVEYORS, 316 S.S., 18"x10', 18"x72'.
1—Link Belt 40'6" cc Bucket ELEVATOR, 304 S.S.

13—Alberger Karbate Heat Exchangers, 431, 370, 255, 188, 170, 159, 70 and 16.4 sq. ft.
2—Schaller 93.8 sq. ft. nickel Heat Exchangers.
5—Pfaudler 2300, 1200, 500 and 150 gal. glass lined Tanks.
2—316 S.S. Hoppers 13,000 and 7500 gal.
7—Karbate Centrifugal Pumps Series 4A and 5A, 5 HP XP motors.
5—Lawrence 316 S.S. Vertical Centrifugal Pumps 3" and 4".
4—Link Belt 12" rubber belt Conveyors, totally enclosed 30' to 77' cc.
7—Sturtevant, American spark proof Blowers, 7900 to 17,500 cfm.

4000 ft. 1" to 6" Saran lined pipe with fittings and 200 valves—316 S.S. fittings and valves—Karbate glass and glass lined pipe and fittings—instruments—explosion proof motors—fixtures—steel buildings.

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DRYERS
2—Link Belt Roto-Louvre 6'4"x24', 3'10"x16', steel.
1—Link Belt Roto-Louvre 7'5"x20', stainless steel.
2—Hersey 4'x30', 3'x20' S.S. Hot Air Rotary.
3—Struthers-Wells 5'x15' nickel Rotary Vacs.
1—Devine 2'x4' Vacuum Drum, 316 S.S.
1—Stokes 138H Vacuum Shelf with 10—44"x40" shelves.
1—Devine double door Vacuum Shelf with 17—59"x78" shelves.
2—Stokes Rotary Vac. 3'x15', 30"x8'.
1—Devine Rotating Vacuum 5'x10'.
3—Rotary Dryers 5'x30', 5'x40', 4½'x50'.

MIXERS
1—Baker Perkins 100 gal., jacketed, double arm, vacuum.
2—Baker Perkins 100, 50 gal. double arm, jacketed.
1—Day #30 Imperial double arm, 75 gals.
7—Sprout Waldron S.S. jacketed, Powder, 67, 27 and 10 cu. ft.
1—Struthers-Wells 6'x9' S.S. Rotating, jacketed.

MILLS
1—Patterson 6'x8' porcelain (Berylite) lined Mill, 50 HP, NEW.
5—Mikro Pulverizers #4TH, #3TH, #2TH, #2DH, #1SH.
2—Hardinge 6'x22', 4½'x16" Conical, steel lined.
3—National 10"x20", 6"x12" Two-Roll Mills with motors.

CENTRIFUGES
1—Sharples PN14 Super-D-Canter, 316 S.S.
2—Sharples C-20, C-27, Super-D-Hydrators, 316 S.S.
2—Bird 18"x28" solid bowl, continuous, 310 S.S.
3—Sharples P16 Monel and S.S. Pressurtite Super Centrifuges.
1—Bird 40" Suspended, 347 S.S., perforated basket, XP motor.
1—AT&M 40" Suspended, 347 S.S., perforated basket, TEFC motor.
3—Tolhurst 40", 32", Suspended, steel, perforated basket, M.D.
1—Bird 40" Suspended, rubber covered, imperforate basket, M.D.
1—AT&M 36" center-slung, rubber covered, perforated basket.

REACTORS
1—Pfaudler 100 gal. glass lined jacketed agitated.
1—Buflovak 800 gal., 347 S.S., jacketed, agitated.

FILTERS
2—Oliver 8'x10' Monel Rotary Vacuum.
1—Oliver 8'x6' S.S. Rotary Vacuum, UNUSED.
1—Sparkler 33-D-9 Filter, 316 S.S.
1—Sparkler 33-S-17 Filter, Steel.
1—Niagara 110-20 Filter with 12 S.S. leaves.
2—#3 Sweetland S.S. Filters with 12—25" dia. leaves 75 sq. ft.
4—Shriver 36"x36", 30"x30", c.i. Filter Presses, P&F, washing.

MISCELLANEOUS
4—Orville Simpson Rotex Sifters 40"x120", 40"x84", 20"x81".
2—Stokes #DD2 and #D3 Rotary Tablet Machines.
6—Nash vacuum pumps H8, H7, H6, #4.
7—Durco S.S. centrifugal pumps 1" to 3".

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STAINLESS STEEL TANKS

1—10500 gal. Horiz. T304—NEW.

1—7150 gal. Vert. T304—Used.

1—6500 gal. Vert. Clad—Used.

1—4500 gal. Vert. T304—NEW.

1—2600 gal. T347 Vacuum Receiver with 15# jkt.

1—2000 gal. Vert. Clad—Used.

40—From 15 gal. to 1000 gal.

16—Stainless Steel Stock Pots—30 gal., 16 gal., 14 gal.

1—T316 Bin or Hopper, 6'9" x 6'9"x10' O.A.H., 275 cu. ft.

RECENT PURCHASES

1—Day 30 gal. double arm sigma blade Jacketed Mixer.

1—Sturtevant Lab. Jaw Crusher.

1—Sturtevant Lab. Roll Crusher.

1—Blaw-Knox 15 gal. T347 Stainless Steel Pilot Plant (Resin Kettle, Jkt. & Agit.)

2—Blaw-Knox ½ gal. Stainless Steel Autoclaves, 2000# Pr., agit.

1—8800 gal. Horiz. Welded Steel Pressure or Vacuum Cooker, Agit., ASME.

3—Fitzpatrick Comminuting Machines, St. St.—Models D, D-6 & F.

1—Pneu-Vac. 13" St. St. Dust Collector.

1—4' x 5' Patterson Steel Ball Mill, Jacketed.

4—Pebble Mills—72" x 96", 31" x 31", 22" x 28".

2—W & P 100 gal. Sigma Blade Jacketed Mixers.

2—Contin. Ball Mills, Steel, 6' x 16' Al. Ch., 3' x 6' K-V.S.

1—500 gal. T316 St. St. Evaporator with 145 sq. ft. hairpin coil.

1—425 sq. ft. St. St. Calandria.

4—Steel Reboilers, 785 sq. ft.

5—Steel Shell & Tube Condensers, 1200 sq. ft. unused.

2—Charlotte #50 Colloid Mills.

1—Sharples 16P Pressurtite Centrifuge, St. St. Unused.

1—Oliver Precoat Rubber Lined Vacuum Filter 5'3" x 3', closed pressure housing.

5—Shriver 30" C.I. Filter Presses, open dely., 17 ch. to 50 ch.

1—Sweetland #2 Filter.

400' T316 Seamless Stainless Steel Pipe, 2½", Unused.

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YOUR SOURCE FOR BEST BUYS

2—Phila. Reducers 17½: 1 w/15 H.P. motors and 36" Turbines.

1—Blaw Knox 110 Gal. Jack. Ag. Autoclave 2000 psi.

1—Horiz. Jack. Autoclave 30"x48"x84" deep.

1—Keeler 350 H.P. Type CP Boiler 160# W.P.

1—Davis Inconel Heat Exch. 195 Sq. Ft.

8—Surface Condensers & Receivers, 100 to 175 Sq. Ft.

5—Unused Pfaudler 100 Gallon Glass Lined Vacuum Receivers.

1—Carrier Atmos. 8 Truck Dryer.

1—Buflovak 20 Shelf Vac. Shelf Dryer, 42" x42" Shelves.

8—Devine Double Dr. Vac. Shelf Dryers, 17 & 20 Shelf 59"x78".

1—Allbright-Nell 4'x9' Double Drum Dryer.

8—C.I. Filter Presses, 12" to 30".

2—Sweetland Filters, #10 & #12.

3—Sparkler Stainless Filters 8-6.

1—Glasscote 750 gal. Jack. Glass Lined Kettle 75# W.P.—Perfect. Coded.

2—Pfaudler Reactors, 100 & 1000 gallon, G.L.

4—Eppenbach & Premier Colloid Mills, S.S. 1 to 50 gph.

5—W. & P. Mixers—20 Gal., 100 Gal., 200 Gal., Double Arm.

2—Day 150 Gal. Stainless Steel D.A. Mixers.

3—Rotex Screens 20"x48" to 40"x120".

1—Stainless Steel Tank 2100 gal., w/coil.

1—Sharples Stainless Nozzlejector.

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4—Stainless Steel Merco Type C-30 Continuous CENTRIFUGAL SEPARATORS, each with 100 H.P. TEFC motors & controls.

2—S/S Hersey Rotary Dryers. 5'x26' and 6'x23'.

3—6'6"x50' D. H. Rot. Dryers, ⅝".

3—3'x50' Rotary D. H. Dryers or Coolers.

2—8'x125' Rotary Kilns.

1—Buflovac 42x120, 32x120 Atmos dbl. Drum Dryers, complete; 1—American 24x36.

3—36"x50" and 1—40"x60" Bird Continuous Centrifugals, S/S Solid bowls.

2—Sharples C-20 & C-27 S/S Super-D-Hydrators.

1—2TH Micropulverizer.

2—1,000 gal. Monel, jack., agit., closed kettles.

1—Buflovac 48"x40" Drum Flaker, chrome plated, s/s ends.

14—Sperry 18"x18" iron Filter Presses, 11 chambers.

1—50 gal, stainless 347 Calandria Still, agitated, sight glasses, with condenser.

1—50 gal. stainless 347 agitated Tank, M.D.

2—Link-Belt Co. ROTARY DRYERS, Roto-Louvre #502-16 Type C, 5'2" dia. 16' long with #304 S/S contact parts. #207-10, 2'7" dia. x 10' long, carbon steel construction, and all auxiliaries.

1—Day #30 Imperial jack. Mixer, 75 gal.

3—Anco 4'x9' Chilling Rolls.

3—#12 Sweetland FILTERS, 48 bronze monel covered leaves, 3" c/c.

5—Horiz. Dry Powder Ribbon Mixers, 4000#, 1500#, 500#.

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★ Oliver Horizontal Rotary Vacuum Filter; Pan 7' Dia.; Stainless Contacts, complete with Drive and Discharge Mechanism.
★ Shriver & Sperry Aluminum Filter Presses; 12", 18", 30", 36".
★ Shriver & Sperry Stainless Filter Presses; 12" and 18".
★ 2 Enzinger Pressure Filters; 15 leaves in tank 48" x 91".
★ A.T.&M. 30" S.S. Suspended Centrifuge, plow discharge; 20 HP.
★ A. T. & M. 42" Stainless Suspended Centrifugal; 30/15 HP.
★ Sharples Super-D-Hydrators; Models C20 and C27 in Stainless.
★ Sharples Super-D-Canter Type 316 SS; Model PN 14.
★ DeLaval Nozzle Ejector Stainless Centrifuge or Yeast Separator.
★ Bird 36" x 50" Centrifugal Filter; Rubber Cov. & S.S.; 40HP.
★ Bird 18" x 28" Continuous Steel Centrifuge with solid conical bowl.
★ Bird 40" x 60" Continuous Stainless Steel Centrifuge 50 H.P. plus accessories.
★ Horizontal Vulcanizer 6' x 10'; Simplex Door; ASME-U69; at 125#PSI.
★ Buflovak Stainless Clad Vac. Filter-Dryer; Jktd; 78" x 58" complete.
★ Colton Model #5½ Single Punch Tablet Press; 3" x 1½" die; 5 HP.
★ Ross Stainless Steel Heat Exchanger; 1100 sq. ft. surface area with 284 tubes
★ American Ring Roll Pulverizer with 50 HP 3/60/220-440 V motor.
★ International Type X24 Pebble Mill 8' x 8' with 50 HP gearmotor.
★ Patterson Buhrstone Lined Pebble Mills; 5' x 8'; 6' x 6' and 6' x 8'.
★ Hardinge Conical Ball Mill 10' diameter x 48" face.
★ Stokes Rotary Jacketed Vacuum Dryer; 30" x 10' complete.
★ Devine Vacuum Shelf Dryer No. 12; shelves 40" x 42".
★ Squier Stainless Clad Rotary Atmospheric Dryer; 30" x 20'.
★ Bagley & Sewell Double Drum Dryer; 28" x 60" with Accessories.
★ C.E. Two Stage S.S. Flash Drying System; 1000 lbs. evap. per hour.
★ Raymond Flash Drying System including No. 47 Imp Mill, Dust Collector, Cyclone Gas Fired Heater and accessories.
★ Louisville Steam Tube Dryer; 54" x 40' with Cooler 38" x 20'.
★ Rotary Jacketed Vacuum Dryer; 52" x 102"; Dust Collector & access.
★ Copper 2000 gal. Vacuum Pan; coil heated.
★ Zaremba INCONEL Double Effect Evaporator; 60" x 17' and 84" x 15'6".
★ Swenson Quadruple Effect Evaporator: Long Tube Vert. Film Type.
★ Stainless Steel 63 cu. ft. Ribbon Mixer; 36" x 100".
★ Sprout Waldron 283 cu. ft. Steel Ribbon Mixer; 5' x 10'.
★ Readco 210 gal. Jacketed Heavy Duty Double Ribbon Mixer, 30" x 68".
★ Sprout Waldron Stainless Ribbon Mixer; Continuous Cylinder; 28" x 12'.
★ W. & P. Type Heavy Duty Double Arm Jcktd. Mixer; 100 gal. working.
★ Baker Perkins 200 gal. Jacketed Double Arm Mixer; size 17; BB/V11.
★ Stainless Tumbling Barrel Mixer 5' x 5'; baffled interior; 3 HP.
★ Lancaster Mix Mullers; Type EAG3 and EAG4 with accessories.
★ Stainless Steel Bubble Cap Column; 16 sec.; 8⅝" x 19'; complete.
★ Aluminum Column; Bubble Cap; 60 plates; 27½" dia. x 36' high.
★ Pfaudler Glass Lined Jacketed Reactors; 150 gal., 400 gal., 1000 gal.
★ Monel 750 gal. Reactor; Jacketed and Agitated; 5' x 5'.
★ Lancaster Stainless Lined Rotary Reactor; 300 PSI; Int. 50" x 17'.
★ Dopp Cast Iron Jacketed and Agitated Kettles; 650 gal.; 61" x 68".
★ Bethlehem Cast Iron Sulphonator; 79" x 74½"; with Coils in Jacket.
★ Orville Simpson Rotex Sifters; 30" x 60"; 60" x 84"; 40" x 120".
★ Robinson Unique Gyro Sifters; 20" x 69"; 20" x 86"; 40" x 60".
★ A. O. Smith Stainless Lined Pressure Tanks; 149 PSI; 10'x30'.
★ Horizontal Lithcote lined Tank; 3500 gal. 6' x 17'.

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1—Pfaudler Storage glass lined Tanks, 1000 gal.

6—Pfaudler glass lined Vacuum Receivers, 50 gal. each (New).

2—Pfaudler 10,000 gal. glass lined Storage Tanks (New).

1—Groen S.S. Jacketed Kettle 40 gal. with agitator and drive.

5—S.S. Jacketed 650 gal. Kettles.

2—S.S. Jacketed Kettles, 13 gal. each.

5—S.S. Jacketed 380 gal. Kettles.

1—Plate Fabricators Steel Jacketed Kettle 6000 gal.

1—Nooter Steel Jacketed Kettle 750 gal. 75 PSI.

1—Patterson Kelly Steel Jacketed 1500 gal. Kettle 75 PSI.

1—Struthers Wells Steel Jacketed Kettle 1800 gal. with turbine agitators.

2—Steel Jacketed Crystallizing Dishes 4'x2' with Netco Drive.

1—Read S.S. Double Arm Jacketed Sigma Blade Vacuum Mixer 10 gal.

1—Day S.S. Double Arm Jacket Mixer Sigma Blades, 50 gal.

1—Struther Wells Northmaster Vacuum Mixer Double Arm Dispersion Blades, 50 gal.

2—Nooter type 316 S.S. Jacketed Kettles, 1000 gals. each 110 PSI Jacket and 50 PSI internal (New).

1—Day Steel Jacketed Double Arm Sigma Blade Mixer, 75 gal.

1—Read Double Arm Sigma Blade Jacketed Mixer, 50 gal.

1—Banbury Laboratory Experimental Mixer with 25 H.P. motor.

4—Baker Perkins Double Arm Jacketed Sigma Blades Mixers, 100 gal.

1—Lancaster S.S. Laboratory Muller Mixer.

6—Simpson #0 and #1 Intensive Mixers.

2—Feinc type 316 S.S. Rotary Vacuum Filters, String Discharge, 6'6" x 6'.

2—Feinc type 304 S.S. Rotary Vacuum Filters, String Discharge, 3' x 3'.

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1—Devine Rotary Vacuum Dryer, 5' x 25'.

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1—International S.S. Double Ribbon Blender, 50 cu. ft.

1—Stokes Heresite lined Rotary Vacuum Dryer, 3 x 12.

1—Buflovak 32" x 90" Double Drum Dryer.

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1—Titusville 500 HP, Package Boiler, 125 PSI.

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President Urged to Allow

—Continued from page 3

would not, however, affect the bulk commodity exemption now applicable to the transportation of such commodities by contract carriers in non-ocean going vessels on international waters. Also, it was proposed to allow the contract carriers to seek exemption of the published rate requirement, by reason of the nature of the commodities or requirement for special equipment not being competitive with rail or motor common carriers.

Another Chemical Industry Feature

Another recommendation important to the chemical industry was repeal of the long-and-short haul clause (fourth section). This section requires rail or water common carriers to obtain prior approval for charging greater than the aggregate of intermediate rates, and for charging less for longer than for shorter distances over the same line or route in the same direction.

Exemptions from these requirements are sought every week by railroads moving fertilizers or some other bulk commodity. In usual cases, the exemptions are granted almost automatically. The committee stated that the prohibitions against charging less for longer than for shorter hauls or charging more than the aggregate of intermediate rates, might be justified if there were no competition for the railroads to meet or the competition were evenly distributed among their stations and equally potent at each.

Where Competition Exists

"The fact is, however, that competition exists between stations in varying degrees," the report said, "and when the railroads seek (for instance) to publish rates which are lower to the further distant point which is located on water than to the intermediate point which is inland, they are not creating preference and prejudice. These are already present by virtue of the existence of water service to the further distant point and will continue—regardless of any action the railroads may or may not take. The question in such cases is, are the railroads entitled to make themselves competitive or is the traffic to be handled to the further distant point exclusively by a competing pipeline, railroad, water or other carrier?"

The committee's recommendations that the carriers be given more freedom to fix their own rates is based on the finding that the present policy places undue restraints upon competitive rate and service experimentation by the several types of transporting agencies. Under current provisions of the interstate commerce act, the commission is authorized to prescribe the maximum and/or minimum rate or exact rate upon a finding that the rate being investigated is unreasonable or unjustly discriminatory or unduly preferential.

The report noted that these rate controls were vested in the ICC during the period when the railroads were the sole or predominant inter-city form of transportation, and the principle purpose was to protect the general public against railroad monopolistic pricing. With the changed character of the transport organization and for the competition for traffic, there is no longer a need in the public interest to continue the present scope of rate controls, it was stated.

In giving the carriers greater freedom to set their rates, the committee stated, however, that the shipper is entitled to protection against unjust discrimination. Hence it was proposed that the ICC continue to maintain supervision and control over the rate making authority of the carriers so as:—

•To prescribe minimum rates which shall not be less than a just and reasonable minimum. The committee believed that rates would be unreasonably low when not compensatory, i.e., when they failed to cover the direct ascertainable cost of producing the service.

•To prescribe maximum rates which would not be in excess of a just and reasonable maximum; provided, that rates cannot be forced by the ICC below the full cost of performing the services to which such rates apply exclusive of losses in other services. In this connection the commission should be required to take into consideration the extent and effect of competition with respect to the service to which the rates apply to the end that carriers shall be prevented from charging excessive or unreasonable rates on traffic which is non-competitive.

•To determine rate relationships which would avoid unjust discrimination or undue preferences in event the latter are found to characterize any existing rate relationships, including the relationship of rates to be maintained as between intrastate and interstate commerce where state commissions have prescribed the basis of intrastate rates which is inconsistent with the basis currently in force on interstate traffic in a degree shown to burden interstate commerce.

Other Committee Recommendations

Other recommendations of the committee included:—

Continue on a more restrictive basis ICC authority to suspend proposed changes in rates; shorten the suspension period to three months; and continue the provision that places the burden of proof upon the carrier proposing a changed rate, unless the protestant is also a carrier.

Make lawful such volume rates as are based on cost differences, which rates are established to meet competition.

Redefine a private carrier by motor vehicle as any person not included in the definition of a common or a contract carrier who transports property of which he is the owner, provided that the property was not acquired for the purpose of such transportation.

P.A.'s-Eye View

—Continued from page 5

good inventory control and have not embarked on a speculative buying program. The reported increases generally reflect the need for larger stocks to handle increased production schedules.

Employment

Reports on employment this month were the most optimistic since April, 1951. With the advent of a generally conceded early Spring, the employment picture looks very bright indeed. There is a marked pickup in employment in the building trades and farm labor. Many large industries report extra shifts and longer work weeks. Ninety-three percent of reporting members say employment is the same or better than last month. Strikes in key industries this spring seem to be the only cloud on an otherwise bright horizon.

Buying Policy

Purchasing executives' inclination to lengthen their covering continues. The number operating in the hand-to-mouth range is decreasing and now represents only 11 percent. Those buying for 120 days or more into the future have jumped from 5 percent last month to 14 percent this month. The great preponderance though (75 percent) is in the thirty-to-ninety days' range.

Specific Commodity Changes

Moderate commodity price increases (aside from copper) were prevalent this month. Reports of downward price movements were scattered and inconclusive. They unquestionably reflected local market conditions. No item was reported down by enough members to be mentioned in this report.

On the up side were copper, brass, zinc, steel, magnesium, aluminum, tin, brass valves, rubber and paper. In short supply are steel, copper, nickel, aluminum, selenium, glycerine, plaster board, phthalic anhydride, titanium, dioxide, and numerous steel and copper shapes and products.

Oil Chemists Elect Peterson

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were H. C. Black, associate director of research, Swift & Co., Chicago, and J. J. Ganucheau, district chemist, Southern Cotton Oil Company, Gretna, La. The third was N. D. Embree, director of research, Distillation Products Industries, a division of Eastman Kodak Company, Rochester, N. Y.

Also serving on the governing board during the coming year will be four past presidents:—C. E. Morris, Armour & Co., Chicago; Procter Thomson, Procter & Gamble, Cincinnati, Ohio; E. M. James, consultant, Swarthmore, Pa., and J. R. Mays, jr., Barrow-Agee Laboratories, Inc., Memphis, Tenn.

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by the technical service committees of NFA and APEC.

M. V. Bailey, technical director of the agricultural chemicals division of American Cyanamid Company, New York, will be the moderator for the forum. Other speakers will include K. D. Jacob, head of the fertilizer and lime section, Department of Agriculture, Beltsville; C. T. Harding, general manager of the fertilizer division, manufacturing department, Virginia-Carolina Chemical Corporation, Richmond, Va.; John D. Conner, attorney, Sellers & Conner, Washington, D. C., and Rodney C. Berry, Virginia state chemist, Virginia Department of Agriculture, Richmond.

An address by assistant Secretary of Agriculture E. L. Peterson and a youth panel of representatives of the Future Farmers of America, 4-H Clubs, and the National Junior Vegetable Growers Association will be features of the Tuesday morning session. E. A. Geoghegan of New Orleans, La., chairman of the board of directors of NFA, will preside and address the convention and will be followed by Edwin Pate, Laurinburg, N. C., who will speak as chairman of the executive committee of APFC.

Youth panel participants on the Tuesday morning program will be Prof. William B. Ward head, department of extension teaching and information, Cornell University, Ithaca, N. Y., moderator; William D. Gunter, Live Oak, Fla., national president of the Future Farmers of America; Lamar Ratloff, Baldwyn, Miss., representing 4-H Clubs; Joe Strickland and Tommy Dotson of Summersville, W. Va., representing the National Junior Vegetable Growers Association. The annual banquet, preceded by a refreshment hour, will conclude the Tuesday program.

Sen. John L. McClellan of Arkansas, chairman of the senate committee on government operations, and Rep. Harold D. Cooley of North Carolina, chairman of the house committee on agriculture, will be feature speakers at the Wednesday morning session, at which Mr. Pate will preside.

Preceding the addresses, George Gage, Anderson, S. C., will present the "In Memoriam" resolutions. Another feature of the Wednesday program will be the presentation of scrolls to winners in the nationwide "Soil Builders Award for Editors" contest by Louis H. Wilson, secretary and director of information of the American Plant Food Council.

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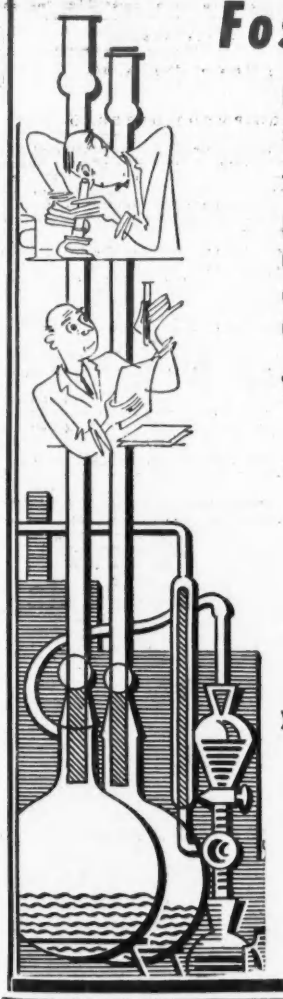

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WAtkins 4-8800

Woodman Spare That Cash!

Stop Mounting OPD Ad Plates

Why spend your money shipping us wood-mounted advertising plates, when we just have to unmount them again and throw the wood away?

Increasingly, advertisers are forgetting that Oil, Paint and Drug Reporter is newspaper-printed from sterotypes and doesn't use mounted plates.

Appearance of your advertisement may suffer if we haven't time to remove the block; wood compresses under the mat roller and the mat impressions often aren't deep enough for a satisfactory stereo.

Please: Unblocked plates only for OPD.

SCHNELL PUBLISHING COMPANY, INC.

ESTER SOLVENTS

Ethyl - Isopropyl - Butyl - Methyl Amyl and "Cellosolve"* - Acetates

*Registered Trade Mark U.C. & C.C.

CHEMICAL SOLVENTS INCORPORATED

WOrth 2-7763 • MArket 2-3650 — 60 PARK PLACE, NEWARK 2, N. J.

YOUR CONTACT WITH THE WORLD'S MARKETS ESTABLISHED 1918

NAPHTHALENE

PARADICHLOROBENZENE

ORTHODICHLOROBENZENE

ROSENTHAL BERCOW CO., INC

ROBECO CHEMICALS

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CABLE ADDRESS "RODRUG" — MURRAY HILL 3-7500

Sulphuric Acid From 50° to 65% Oleum | **Nitric Acid** | **Muriatic Acid** 18°-20°-22° | **Phenol Sulphonic Acid**

in Tank Cars—Tank Transports

ELECTROLYTE ACID

(Any Strength)

1 qt. Polyethylene Bottles—12 to the case—ICC Approved

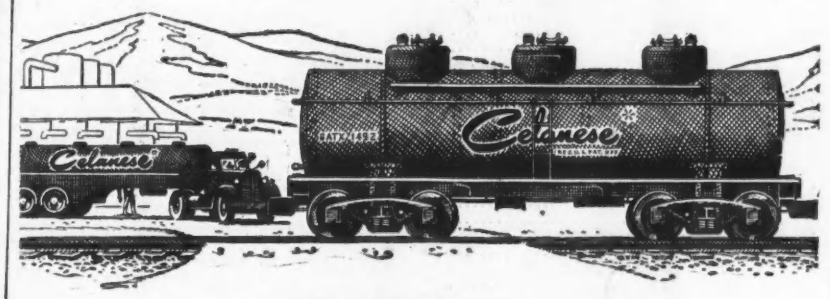
5-pint Glass Bottles—2 to the case—ICC Approved

CORNWELL CHEMICAL CORP. EXECUTIVE OFFICES... 24 EAST 38th ST., NEW YORK, N.Y. MUrray Hill 3-0174

SALES OFFICES...Philadelphia, Pa.—Orchard 3-2088 - 744 Broad St., Newark, N. J.—Market 4-2776 Cornwells Heights, Pa.—Orchard 3-2077

Inventory Streamliner...

Combination shipments of Celanese* Solvents and Plasticizers, in compartmented tankcars or tank-wagons, hold down inventories to immediate-use levels, ease storage problems, still give you economy of tankcar prices.



CELANESE*

SOLVENTS

Acetone
n-Butanol
Isobutanol
Methanol
n-Propanol
n-Butyl Acetate
n-Propyl Acetate
Butylene Glycols
Dipropylene Glycol
Propylene Glycol
Celanese Solvent 203
Celanese Solvent 301
Celanese Solvent 601
Celanese Solvent 901H

PLASTICIZERS

LINDOL*
Tricresyl Phosphate
CELLUFLEX* 179C
Tricresyl Phosphate
CELLUFLEX* 112
Mixed ester
CELLUFLEX* TPP
Triphenyl Phosphate
CELLUFLEX* DBP
Dibutyl Phthalate
CELLUFLEX* DOP
Dioctyl Phthalate

Celanese CHEMICALS

*Reg. U. S. Pat. Off.

Celanese Corporation of America, Chemical Division, 180 Madison Avenue, New York 16

IRM WAXES

. . . Prepared expressly to your specifications

Paraffin Waxes
Microcrystalline Waxes
Laminating Waxes
Dip Waxes
Barrier Waxes
Precision Casting Wax
Dairy Wax

All specifications required for micros and blends.

IRM **INDUSTRIAL RAW MATERIALS CORP.**

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